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REPORT

OF THE

AGRICULTURAL AND MECHANICAL COLLEGE

OF TEXAS,

LOCATED AT COLLEGE STATION, BRAZOS COUNTY.

AUSTIN:
SMITH, HICKS & JONES, STATE PRINTERS.
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REPORT OF THE BOARD OF DIRECTORS.

To His Excellency L. S. Ross, Governor of Texas:

The Board of Directors of the Agricultural and Mechanical College of Texas have the honor to submit to you a report of the present condition of the institution under their charge, and of its management since their last biennial report.

Two years ago, Messrs. W. R. Cavitt, T. M. Scott, J. S. Garrison, Geo. M. Dilley and C. C. Garrett composed the Board. Col. Scott, who had been associated with the management of the College with only a short interval ever since its organization, resigned in January, 1887, to accept the position of agent of the Board, the duties of which he is now acceptably discharging. Col. A. J. Rose was appointed in his place. The term of office of the members comprising the Board expired in April, 1887, and they were all reappointed by your Excellency. By an act of the Twentieth Legislature the Commissioner of Agriculture was made *ex officio* a member of the Board, his duties to begin when the first vacancy occurred. Hon. J. G. Garrison resigned in October, 1887, when Hon. L. L. Foster, the incumbent Commissioner of Agriculture, became a member by virtue of his office. As it is now constituted the Board is composed of the following members: W. R. Cavitt, Geo. M. Dilley, C. C. Garrett, A. J. Rose and L. L. Foster.

It is with sorrow that we note the death of Prof. H. H. Dinwiddie, which occurred in December, 1887. He had been Chairman of the Faculty since 1883, and was a faithful and efficient officer. In his death the State has sustained the loss of a valuable citizen, and an accomplished scholar and teacher. Prof. Louis L. McInnis was elected Chairman of the Faculty in his stead.

Steady advancement has been made in all the departments of the College during the past two years. Buildings have been erected and the facilities of the institution enlarged and extended by better equipment, and the addition of new departments. Your careful attention is invited to the reports of the several officers and professors accompanying this report for a detailed statement of the improvements and additions, as well as the present condition of the several academic departments.

The care of the sick has been better provided for by the erection of a hospital and surgeon's residence, and two brick dormitories have been built which will accommodate about seventy-five students each. The building of the dormitories was rendered imperative by the increasing and pressing demand made for the use of all the rooms in the main academic building for class rooms, offices, laboratories, museum, library and other academic purposes, as well as by a constantly increasing attendance of students. An assembly hall, or chapel, has been contracted for and will soon be in course of construction. The necessity of a place where the corps of cadets could be assembled in a body for chapel exercises, lectures and addresses, to say nothing of a suitable hall for all commencement and other public exercises, had been felt ever since the organization of the College. The chapel now in use is in the fourth story uf the main building, not easily accessible and in every way unsuitable, as well as being in demand as a class room for instruction in drawing. Many other improvements have been made, including two professors' cottages, creamery, barns, etc.

It has been and is the policy of the Board to make progress, not in an uncertain and undefined way, but to keep step with the age in which we live, and in order to do so it is necessary first to catch up. This is not done merely by the expenditure of money, but it involves the expenditure of money. By economy in the use of the resources of the College, and with the small additional appropriation of the Twentieth Legislature at its regular session, the Board was enabled to expend in permanent improvements, prior to the appropriation made by the same Legislature at its called session, no less a sum than $17,943.83. These were the first dormitory, Pfeuffer hall, the hospital, house for foreman of farm, and other minor improvements. The report of the Chairman of the Faculty will give a statement of the estimated cost of improvements out of the appropriation made by the Twentieth Legislature at its called session.

During these two years five departments have been added to the College, to-wit: Veterinary science, horticulture and botany, drawing, civil engineering and physics and experimental agriculture, the last mentioned being in connection with the Experiment Station established by the bounty of the federal government. Heretofore some general knowledge of veterinary science had been taught in the department of agriculture, but now this branch is being fully developed, and it is hoped that the development may be of practical use to the stock-raiser of the State, in connection with a State Veterinary Department and Veterinarian. A quarantine against contagious diseases of animals and an intelligent intervention of the authority of the State for the suppression of such infectious diseases as glanders, etc., might well be the subject of legislative thought and action. The chair of horticulture and botany, is also an outgrowth of the agricultural department, and its importance need not be dwelt upon. Mechanical drawing had been taught in connection with the general subject of mechanics; but the importance of free hand drawing, both to the mechanic and the agricultural student, became so evident and necessary that the Board, only following in the wake of other colleges of the same kind, made drawing a separate department, and provided for instruction in both, mechanical and free hand drawing. The department of civil engineering and physics is taken from the department of mechanics and that of chemistry, with which the physics had before been associated.

Not only have these new departments been added, but the others have been improved. The establishment of the creamery in connection with the agricultural department is an important illustration of the knowledge of dairying, and its influence is already being felt throughout the State. A forge shop has been added to the mechanical department for instruction in the very useful art of blacksmithing. All these additions will require additional expense; and we feel confident that it will never be the policy of the State to take a step backwards, or to fall in the rear of the procession in the great advance of industrial education.

Extensive repairs were made during last summer of all the College buildings, and the several departments further equipped. New and valuable machines and tools have been purchased for the shops, and the department of civil engineering and physics have been supplied with a testing machine, which is not only useful for the instruction of the students, but may be of public benefit in the testing of building material.

Chapel and other religious exercises have always been usual with institutions of learning, situated even in the midst of cities and towns where churches are accessible. Its isolated condition, five miles from the town of Bryan, renders such exercises more desirable at the College. Ministers of the several churches in Bryan have heretofore kindly gone out to the College and held religious exercises on Sunday afternoon, and would perhaps continue to do so, though with considerable inconvenience to themselves, but the influence of a resident chaplain over the students would be much better. The corps ought to assemble at least once each day. There should be some sort of religious exercises every morning in the chapel, and services on Sunday. The moral influence of such exercises can not be denied. A Chaplain has been provided for by the Board, and in addition to his other duties he will be required to teach not exceeding two hours a day. He is also *ex officio* librarian. His duties commence January 1, 1889.

The Experiment Station, provided for by an appropriation by the Federal Congress, has been put into operation, and is managed under the supervision of the Board by a counsel composed of the Director of the Station, the Chairman of the Faculty and the agent of the Board of Directors. With proper management it will be a great auxiliary in the practical work of the College, giving practical effect to the science of agriculture as taught in the daily lectures by actual experiments in the solution of questions raised by instruction. A full and rapid detail of the report of the Station will be made to your Excellency on February 1 next, as required by the act of Congress making the appropriation. With time and co-operation on the part of the farmers of the State, the Experiment Station will become a valuable aid to the farming and stockraising interests of the State. In the previous history of the college, it has been more difficult to give practical effect to the studies in agriculture than in mechanics. The shops, with their immediate results, have been always more inviting to the students than the routine of growing crops. But with the attention of the student directed to single and practical experiments of interest, not only in growing crops, but also in feeding cattle, experiments in horticulture, and in the investigation of diseases of plants and animals, his interest will increase, and the effect has already been seen in the increased per cent of the students who take the agricultural course. The establishment of the experiment stations at the agricultural and mechanical colleges throughout the United States was clearly intended to be of practical benefit to the colleges, and while they should not be merged into the colleges, they should certainly be so managed as to aid the agricultural department and develop it into the highest degree or excellence attainable.

By reference to the report of the Chairman of the Faculty it will be seen that something more than the usual appropriation of $15,000 per annum is necessary for the liberal maintenance of the college on the improved basis upon which it is being operated. It is also suggested by the Board that the contingent fund of the college, which accrues from profits in maintenance of students, and which with the increased attendance now amounts to nearly $4,000 annually, should be reduced by a reduction of cost to the students, thus placing the facilities of the college within the reach of more people. An annual appropriation of $20,000 above the interest received from its endowment fund would at present maintain the college and enable the Board to make some reduction in the cost to students. It is further suggested that there should be an annual appropriation of some amount for improvements and repairs. The present large plant of buildings will be in continual need of repairs, and improvements in the various departments are constantly suggesting themselves.

It is hoped that the Legislature will make provision for the building of a suitable chemical laboratory. There are many cogent reasons why it should be done. There is scarcely an agricultural college in the United States without one. The report of the professor of chemistry and minerology setting forth the necessity of a laboratory is referred to. It will cost about $10,000. A further appropriation of $7500 is necessary to complete the assembly hall and chapel. An appropriation of $20,000 was made by the last Legislature at its called session, with which to build a dormitory and an assembly hall. They could not be erected in the same building and the appropriation was insufficient for the two, so to save the appropriation the Board has had a new brick dormitory built and has let the contract for the assembly hall with the provision that the contractor shall stop work when directed to do so, but it will require about $7500, as above stated, to complete it. When finished it will be an ornament to the grounds and in keeping with the other improvements made by the State.

In submitting their estimates for the information of the Legislature the members of the Board do not feel that it is a part of their functions merely to provide methods in which money may be expended, but that they should point out with fidelity to the trust reposed in them the means by which it can be, in their judgment, best administered. They feel that your Excellency and each member of the Legislature have the same interest in the success of the College that they have, the only difference being that theirs is of a more special nature. It has been usual for the Legislature to appropriate for the maintenance of this College, as a branch of the University, a portion of the University fund. It is the only part of the University, however, that can be maintained under the Constitution by appropriations from the general revenue, and, while the right of the Agricultural and Mechanical College to have a fair proportion of the available University fund appropriated to its maintenance is unquestioned, still in view of the present straitened financial condition of the University proper, this College will not urge any specific appropriation, leaving it to the wisdom of your Excellency and the Legislature to yield to the University and all its branches a support that will foster and build up the cause of higher education in this State, literary and classical, professional and industrial. Attention is respectfully invited, however, to Revised Statutes, article 3689, which provides for the manner of the payment of the actual expenses of the members of the Board of Directors. An appropriation of a sufficient amount of the University fund should be made for that purpose. It is suggested that $500, or so much thereof as may be necessary, should be appropriated.

In order to bring the College into a closer relation with the people it is suggested that your Excellency might appoint a board of visitors with the request to them to visit the same at such time during the year as they may deem proper, to be present at the final exercises in June, and to make a report to the Governor of their impressions of the College, its wants, etc.

In conclusion the Board take pleasure in testifying to the faithful and competent manner in which the professors and instructors have uniformly discharged their duties, and to the general good deportment and studious character of the corps of cadets.

Respectfully submitted,

C. C. GARRETT,

President Board of Directors A. and M. College of Texas.

December 15, 1888.

REPORT OF THE CHAIRMAN OF THE FACULTY.

December 1, 1888.

Hon. C. C. Garrett, President Board of Directors Agricultural and Mechanical College of Texas:

Sir:—The laws of this College impose the following duty on the Chairman of the Faculty:

10. It shall be his duty to carry out the provisions of the following section from the law of Congress:

Section 5. IV. An annual report shall be made regarding the progress of each College, recording any improvements and experiments made, with their costs and results, and such other matters including State industrial and economical statistics as may be supposed useful, one copy of which shall be transmitted by mail free, by each, to all the other Colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

In compliance with that duty I have the honor to submit the following report, which covers the years 1887–88. The continued growth of the College since the last biennial report has been such as greatly to encourage the friends of industrial education in the State.

This success of the College is due to the fact that it is held strictly to its work, of promoting industrial education, and that it is ever kept prominent that its leading object is, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

ACADEMIC STATISTICS.

The increased scope of instruction in agricultural and mechanical branches inaugurated in September, 1887, led to the creation of the chairs of civil engineering and physics, and of horticulture and botany in June, 1887, and the chairs of veterinary science and of drawing in June, 1888. These additional chairs have enabled the College to give more attention to these important branches, and to offer a more diversified course of study, thus greatly increasing its capacity to impart a sound industrial education.

REGULAR COURSES OF STUDY.

There are two regular courses of study and practice leading to degrees and extending through four years each. They are identical for the first year, thus giving the student the advantage of elementary training in subjects that are of equal importance to every one, and affording opportunity for intelligent choice between the courses as continued separately through the three succeeding years. In the last year, or first class, there is a still further specialization by which the student may, in the agricultural course, vary his studies with reference to obtaining either of two degrees, that is, Bachelor of Science (B. S.), or Bachelor of Scientific Agriculture (B. S. A.) In the mechanical course a similar specialization is provided for, by which the student is given the choice between the degrees of Bachelor of Civil Engineering (B. C. E.) and Bachelor of Mechanical Engineering (B. M. E.)

All regular students must pursue either the agricultural or the mechanical course, and there is no course of instruction which is not industrial.

The Latin language is optional and may be studied by any student who may have time for such extra study. German and Spanish are also optional except as is shown in the curricula and may be studied as subjects outside of the regular courses. There is no charge for any optional study.

In view of the great practical importance of the German and Spanish languages for business purposes in our State, special attention is given to these. A large number of the students are of German descent, and speak the language fluently.

By association with these, young men may have continual practice conversation out of the class room as well as in it.

AGRICULTURAL COURSE.

FIRST YEAR—FOURTH CLASS.

Hours per week.		*Fall Term.*
5	MATHEMATICS	Arithmetic (Robinson).
5	ENGLISH	Elementary English (Murray), Composition and Declamation.
3	STOCK LECTURES	Domestic Animals.
2	HORTICULTURE	Introduction to Horticulture; Lectures.
4	SHOP	Carpentry Work.
4	DRAWING	Free Hand.
5	DRILL	Infantry.

Winter Term.

5	MATHEMATICS	Arithmetic, Algebra (Schuylers), begun.
5	ENGLISH	Advanced Lessons in English (Murray), Composition and Declamation.
1	STOCK LECTURES	Domestic Animals.
1	AGRICULTURE	Elementary Agriculture (Gulley).
3	ZOOLOGY	Vertebrate Zoology.
4	SHOP	Carpentry work.
4	DRAWING	Free Hand.

FIRST YEAR—FOURTH CLASS—continued.

Spring Term.

Hours per week.		
5	MATHEMATICS	Algebra (Schuyler).
5	ENGLISH	Advanced Lessons (Murray), Composition and Declamation.
4	BOTANY	Introductory Botany (Wood).
1	AGRICULTURE	Elementary Agriculture (Gulley).
6	PRACTICE	Shop, 2 hours; Agriculture, 2 do; Horticulture, 2 do
2	DRAWING	Free Hand.
3	DRILL	Infantry.

SECOND YEAR—THIRD CLASS.

Fall Term.

5	MATHEMATICS	Algebra (Schuyler).
2	AGRICULTURE	Dairying.
3	HORTICULTURE	Fruit Culture.
4	ENGLISH	Advanced Grammar and Elements of Rhetoric; Compositions and Declamations.
3	PHYSICS	Peck's Ganot.
4	PRACTICE	Horticultural.
4	DRAWING	Free Hand.
5	DRILL	Infantry.

Winter Term.

5	MATHEMATICS	Algebra finished; Geometry.
3	AGRICULTURE	Dairying and Milk Stock.
3	HORTICULTURE	Vegetable Culture.
4	ENGLISH	Advanced Grammar and Elements of Rhetoric completed; United States History begun; Composition and Declamation.
3	PHYSICS	Peck's Ganot.
6	PRACTICE	Agriculture, 4 hours, horticulture, 2 hours.
2	DRAWING	Free Hand.

Spring Term.

5	MATHEMATICS	Geometry (Schuyler).
3	HORTICULTURE	Entomology.
2	AGRICULTURE	Stock Breeding; Lectures.
4	ENGLISH	United States History completed; Composition and Declamation.
3	PHYSICS	Peck's Ganot.
3	DRILL	Infantry Drill.
6	PRACTICE	Agriculture, 4 hours; Horticulture, 2 hours.
2	DRAWING	Free Hand.

THIRD YEAR—SECOND CLASS.

Fall Term.

5	MATHEMATICS	Geometry finished; Trigonometry (Schuyler).
4	CHEMISTRY	Inorganic Chemistry (Reusen).
2	HORTICULTURE	Grasses and composital.
2	AGRICULTURE	Cattle Feeding (Armsby).
2	ENGLISH	Essentials of English (Welsh); Essays.
3	DRILL	Infanty.
8	PRACTICE	Agricultural practice, 6 hours; Experimental Chemistry, 2 hours.
2	DRAWING	Free Hand.

THIRD YEAR—SECOND CLASS—continued.

Winter Term.

Hours per week.		
2	LANGUAGES	Spanish or German; Syntax begun.
4	CHEMISTRY	Inorganic completed.
1	VETERINARY SCIENCE	
4	HORTICULTURE	Economic and Systematic Botany; Lectures.
2	ENGLISH	Essentials of English (finished); Outlines of General History (Swinton's) begun; Essays.
2	AGRICULTURE	Cattle Feeding.
2	BOOKKEEPING	Mussleman's Bookkeeping.
2	TACTICS	Upton's Infantry Tactics U. S. A. Reg.
8	PRACTICE	Agricultural practice, 2 hours; Chemical, 6 hours.
2	DRAWING	Free Hand.

Spring Term.

2	METEOROLOGY	
2	AGRICULTURE	Arboriculture and Forestry Hough).
4	CHEMISTRY	Chemistry of the Carbon Compounds.
1	VETERINARY SCIENCE	
2	SURVEYING	
2	AGRICULTURE	Cattle Feeding.
2	ENGLISH	Outlines of General History completed; Essays
2	LANGUAGES	Grammar finished; Reading.
3	DRILL	Artillery.
2	DRAWING	Free Hand.
2	BOOKKEEPING	
8	PRACTICE	Chemical, 6 hours; forestry, 2 hours.

FOURTH YEAR—FIRST CLASS.

For the Degree of Bachelor of Scientific Agriculture.

Fall Term.

3	CHEMISTRY	Agricultural Chemistry; Lectures.
2	GEOLOGY	Winchell's.
3	AGRICULTURE	Cattle Feeding, Fertilizers and Drainage.
2	ENGLISH	English Literature (begun); Essays.
3	VETERINARY SCIENCE	
2	EXP. AGRICULTURE	
10	PRACTICE	Chemical, 6 hours; Veterinary, 2 hours; Agricultural Experiments, 2 hours.
3	DRILL	Infantry.

Winter Term.

2	MATHEMATICS	Mechanics, Elementary (Wood's).
2	BOTANY	Vegetables, Physiology and Histology.
2	GEOLOGY	Winchell's.
4	AGRICULTURE	Fertilizers and Drainage.
3	VETERINARY	
2	ENGLISH	English Literature (completed); Essays.
2	EXP. AGRICULTURE	
1	MILITARY SCIENCE	Lectures.
10	PRACTICE	Chemical, 3 hours; Botanical Labor, 4 hours; Agricultural Experiments, 3 hours.

FOURTH YEAR—FIRST CLASS—continued.

Spring Term.

Hours per week.		
3	MATHEMATICS.	Mechanics (Wood's).
2	AGRICULTURE	Farm Management; Lectures.
1	ENGLISH	Lectures.
2	PHYSIOLOGY	Huxley and Yauman's.
3	VETERINARY	
2	ASTRONOMY	
2	EXP. AGRICULTURE.	
2	GOVERNMENT SCIENCE.	
10	PRACTICE	Chemical, 3 hours; Agricultural Eperiments, 4 hours; Veterinary, 3 hours.
3	DRILL	Infantry Drill; Target Practice.
	GRADUATION THESIS.	

FOURTH YEAR—FIRST CLASS.

FOR THE DEGREE OF BACHELOR OF SCIENCE.

Fall Term.

3	MYCOLOGY	Lectures on Fungi and Plant Diseases in connection Bessey's Botany.
2	GEOLOGY	Winchell's.
3	CHEMISTRY	Agricultural Chemistry; Lectures.
2	ENGLISH	English Literature; Essays.
2	EXP. AGRICULTURE	
3	LANGUAGES	Short Review of Grammar and Reading of Authors.
10	PRACTICE	Chemical, 6 hours; Botanical Labor, 4 hours.
3	DRILL.	Infantry.

Winter Term.

2	MATHEMATICS	Mechanics' Elementary (Wood's).
4	BOTANY	Vegetable Physiology and Histology.
2	GEOLOGY	Winchell's.
2	ENGLISH	English Literature (comp.); Essays.
3	LANGUAGES	Reading continued.
2	EXP. AGRICULTURE	
2	AGRICULTURE	Fertilizers and Drainage.
1	MILITARY SCIENCE	Lectures.
10	PRACTICE	Chemical, 3 hours; Botanical Labor, 4 hours; Entomological Labratory, 3 hours.

Spring Term.

3	MATHEMATICS	Mechanics (Wood's).
4	HORTICULTURE	Floriculture and Landscape Gardening.
2	ENGLISH	English Lectures.
	ASTRONOMY	
3	LANGUAGES	Reading, Composition and Writing Exercises.
2	PHYSIOLOGY	
2	GOVERNMENT SCIENCE.	
10	PRACTICE	Chemical, 3 hours; Experimental Work, 4 hours; Practice in Greenhouse, 3 hours.
3	DRILL	Infantry Drill: Target Practice.
	GRADUATION THESIS.	

MECHANICAL COURSE.

FIRST YEAR—FOURTH CLASS.

Fall Term.

Hours per week.		
5	MATHEMATICS	Arithmetic (Robinson's).
5	ENGLISH	Elementary English (Murray); Composition and Declamation.
3	STOCK LECTURES	Domestic Animals.
2	HORTICULTURE	Introduction to Horticulture; Lectures.
4	SHOP	Carpentry Work.
4	DRAWING	Free Hand.
5	DRILL	Infantry Drill.

Winter Term.

5	MATHEMATICS	Arthmetic (Robinson); Algebra begun (Schuyler).
5	ENGLISH	Advanced Lessons (Murray); Composition and Declamation.
1	STOCK LECTURES	Domestic Animals.
1	AGRICULTURE	Elementary Agriculture (Gulley).
3	ZOOLOGY	Vertebrate Zoology.
4	SHOP	Carpentry Work.
4	DRAWING	Free Hand.

Spring Term.

5	MATHEMATICS	Algebra (Schuyler).
5	ENGLISH	Advanced Lessons (Murray); Composition and Declamation.
4	BOTANY	Introductory Botany (Wood's).
1	AGRICULTURE	Elementary Agriculture (Gulley).
6	PRACTICE	Shop Work, 2 hours; Agricultural Practice, 2 hours; Horticultural Practice, 2 hours.
3	DRILL	Infantry.
2	DRAWING	Free Hand.

SECOND YEAR—THIRD CLASS.

Fall Term.

5	MATHEMATICS	Algebra (Schuyler).
4	MECHANICS	Mechanism.
4	ENGLISH	Advanced Grammar; Elements of Rhetoric; Composition and Declamation.
3	PHYSICS	Peck's Ganot.
4	PRACTICE	Wood Turning, Blacksmithing, Pipe Fitting, etc.
4	DRAWING	Mechanical.
5	DRILL	Infantry.

Winter Term.

5	MATHEMATICS	Algebra finished; Geometry begun.
5	MECHANICS	Mechanism
4	ENGLISH	Advanced Grammar; Elements of Rhetoric; U. S. History (Stephens'); Composition and Declamation.
3	PHYSICS	Peck's Ganot.
4	PRACTICE	Wood Turning; Blacksmithing, Pipe Fitting, etc.
4	DRAWING	Mechanical.

SECOND YEAR—THIRD CLASS—continued.

Spring Term.

Hours per week.		
5	MATHEMATICS	Geometry (Schuyler).
5	MECHANICS	Steam Engine.
4	ENGLISH	U. S. History; Composition and Declamation.
3	PHYSICS	Peck's Ganot.
3	DRILL	Infantry Drill.
4	PRACTICE	Wood Turning; Blacksmithing; Pipe Fitting, Etc.
4	DRAWING	Mechanical.

THIRD YEAR—SECOND CLASS.

Fall Term.

5	MATHEMATICS	Geometry finished; Trigonometry (Schuyler).
4	CHEMISTRY	Inorganic (Rensen).
2	MECHANICS	Steam Engine.
2	ENGINEERING	Graphic Statistics; Lectures.
2	ENGLISH	Essentials of English begun, with Essays.
2	LANGUAGES	Spanish or German Phonetics and Etymology.
3	DRILL	Infantry.
6	PRACTICE	Metal Working.
4	DRAWING	Mechanical Drawing.

Winter Term.

5	MATHEMATICS	Higher Algebra.
4	CHEMISTRY	Inorganic completed.
2	MECHANICS	Steam Engine.
2	ENGLISH	Essentials of English and Outlines of General History (Swinton's).
2	ENGINEERING	Graphic Statistics (concluded); Contracts and Specifications applied to Engineering Materials.
2	LANGUAGES	Syntax finished. Light reading.
2	TACTICS	Upton's Infantry Tactics U. S. A. Reg.
6	PRACTICE	Metal Working.
4	DRAWING	Mechanical Drawing.

Spring Term.

5	MATHEMATICS	Loomis' Descriptive Geometry.
2	MECHANICS	Boilers.
4	CHEMISTRY	Chemistry of Carbon Compounds.
2	SURVEYING	
2	ENGLISH	Outlines of General History. Essays.
2	LANGUAGES	Grammar finished. Reading.
3	DRILL	Artillery.
6	PRACTICE	Metal Working.
4	DRAWING	Mechanical.

FOURTH YEAR—FIRST CLASS.

FOR THE DEGREE OF BACHELOR OF MECHANICAL ENGINEERING.

Fall Term.

4	MATHEMATICS	Analytical Geometry.
5	MECHANICS	Valve motion and link work.
2	GEOLOGY	Winchell's.
3	LANGUAGES	Short review of Grammar and reading of authors.
3	DRILL	Infantry.
2	ENGLISH	English Literature; Essays.
6	PRACTICE	Higher Machinery.
4	DRAWING	Mechanical.

FOURTH YEAR—FIRST CLASS—continued.

Winter Term.

Hours per week.		
5	MATHEMATICS	Analytical Geometry, 3 hours; Mechanics, 2 hours.
2	GEOLOGY.	Winchell's.
2	ENGLISH.	English Literature (completed); Essays.
5	MECH. ENGINEERING	Indicator work.
2	LANGUAGES.	Reading continued.
1	MILITARY SCIENCE.	Lectures.
6	PRACTICE	Higher Machinery.
4	DRAWING	Mechanical.

Spring Term.

3	MATHEMATICS.	Mechanics (Wood's).
4	MECHANICAL ENG'NG	Experimental work with steam engines.
1	ENGLISH	Lectures.
2	ASTRONOMY.	
3	LANGUAGES.	Reading, Composition and written exercises.
2	PHYSIOLOGY.	
2	GOVERNM'TAL SCIENCE.	
7	PRACTICE	Chemical, 4 hours; Experimental work, 3 hours.
3	DRAWING	Mechanical.
3	DRILL.	Infantry Drill. Target Practice.
	GRADUATION THESIS.	

FOURTH YEAR—FIRST CLASS.

FOR THE DEGREE OF BACHELOR OF CIVIL ENGINEERING.

Fall Term.

4	MATHEMATICS.	Analytical Geometry.
5	CIVIL ENGINEERING	Railroad Engineering; Shunk's Field Engineering.
2	GEOLOGY.	Winchell's.
3	LANGUAGES	Short Review of Grammar and reading of authors.
2	ENGLISH	English Literature; Essays.
4	PRACTICE	Field Practice.
6	DRAWING	Mechanical and Architectural.
3	DRILL.	Infantry.

Winter Term.

6	MATHEMATICS	Analytical Geometry, 3 hours; Mechanics, 3 hours.
2	GEOLOGY	Winchell's.
2	ENGLISH	English Literature, Composition; Essays.
4	ENGINEERING	Shunk's Field Engineering; Bridges and Roofs (Shreve); Lectures on Materials.
3	LANGUAGES	Reading continued.
1	MILITARY SCIENCE	Lectures.
4	PRACTICE	Field and Designing.
6	DRAWING	Mechanical and Architectural.

Spring Term.

3	MATHEMATICS	Mechanics, (Wood's.)
4	CIVIL ENGINERING.	Shreve's Bridges and Roofs; Strength of Material.
1	ENGLISH	Lectures.
2	ASTRONOMY	
3	LANGUAGES	Reading, Conversation and Written Exercises.
2	PHYSIOLOGY	
2	GOVERNMENT. SCIENCE.	
7	PRACTICE	Chemical, 4 hours; Designing and Strength of Material [testing machine] 3 hours.
3	DRILL	Infantry Drill and Target Practice.
3	DRAWING	Mechanical and Architectural.
	GRADUATION THESIS.	

POST-GRADUATE COURSES.

The Post-Graduate degree of M. S. (Master of Science) is given to those who have pursued the Post-Graduate studies for two years, and have passed satisfactory examinations thereon and submitted an approved thesis.

It is required for admission to study for this degree that the candidate be a graduate in one of the courses, or pass satisfactory examinations upon subjects embraced in them.

Students for this degree are under the general regulations of the college, but are not subjected to military discipline; they may, however, be required to assist in keeping order in the barracks.

A student desiring to enter for this degree must select his course of study from prescribed subjects. This selection must be submitted to and approved by the Faculty, and no change can be made without approval of Faculty.

The Faculty requires a sufficient number of subjects to give the students full employment.

SPECIAL COURSES.

Each of these courses is intended to be short and eminently practical, and is not open to any student who may wish to enter it merely as a means of getting through with his education in as short a time as possible. They are for mature young men who may desire instruction in the practical application of the principles involved in the occupations to which these courses apply; young men who may have already received sufficient general elementary training to enable them to take up and pursue technical study in these occupations. Admission to the short courses is therefore strictly at the discretion of the Faculty.

Academic requirements for admission are same as for the fourth class, and the student must be eighteen years of age.

These courses will occupy two years, and students showing satisfactory progress will, at the end of that time, receive certificates of proficiency.

Students may enter these courses at any time. Students in these courses have the privilege of pursuing any studies in the regular courses, the selection of studies to be approved by the Faculty.

Special courses in the following subjects are provided : Agriculture, horticulture, dairying, carpentry, blacksmithing, machinery, chemistry, drawing, surveying.

GOVERNMENT OF THE COLLEGE.

The government of the College is vested in a Board of Directors, consisting of five members, appointed by the Governor. Under the Board there are two sets of officers, those constituting the Faculty, and the non-academic officers, who are charged with the management of the various business matters.

BOARD OF DIRECTORS.

C. C. Garrett, Esq., President	Brenham
W. R. Cavitt, Esq	Bryan
Geo. M. Dilley, Esq	Palestine
Major A. J. Rose	Salado
Hon. L. L. Foster, ex-officio	Austin
Commissioner of Insurance, Statistics, History and Agriculture.	
Louis L. McInnis, ex-officio Secretary	College Station

FACULTY.

Louis L. McInnis, A. M., Chairman	Professor of Mathematics
W. L. Bringhurst, Ph. D., Vice Chairman,	Professor of English and History.
Rudolph Whipprecht	Professor of Languages
R. H. Whitlock, M. E	Professor of Mechanical Engineering
Geo. W. Curtis, M. S. A	Professor of Agriculture
F. A. Gulley, M. S	Professor of Experimental Agriculture
H. H. Harrington, M. S	Professor of Chemistry and Mineralogy
Lt. Guy Carleton, 2d Cavalry, U. S. A.,	Professor of Military Science and Commandant.
Thos. L. Brunk, B. S	Associate Professor Horticulture and Botany
I. H. Kinealy, D. E	Ass't Professor of Civil Engineering and Physics
Mark Francis, V. M. D	Associate Professor of Veterinary Science
Robt. F. Smith	Adjunct Professor of Mathematics
F. E. Giesecke	Instructor in Drawing
W. B. Philpott	Assistant Professor of English and History
D. Adriance	Assistant Professor of Chemistry and Physics
J. F. Duggar, B. S	Assistant Professor of Agriculture
J. F. McKay	Assistant Professor of Horticulture
Paul Braun, B. M. E	Ass't Professor of Mechanical Engineering
A. M. Guenther	Instructor in Blacksmithing

OTHER OFFICERS.

T. M. Scott	Agent of the Board
L. L. McInnis	Ex-officio Secretary
G. A. Rogers	Clerk and Bookkeeper
B. Sbisa	Steward
C. A. Lewis	Foreman of Carpenter Shop
J. H. Alsworth	Foreman of the Farm
G. E. Eberspatcher	Foreman of Garden and Orchard
J. S. Fowlkes, Bryan	Fiscal Agent

It is proper to state in this connection that the Professor of Experimental Agriculture is director of the agricultural experiment station, and that the professors of agriculture, horticulture. chemistry, veterinary science and physics and their several assistants divide their time between the work of the College and the experiment station. This fact should be borne in mind when considering the number in the Faculty, for they must give theoretical and practical instruction to the students, and at the same time carry on the work of agricultural experimentation.

PROFESSOR H. H. DINWIDDIE.

Since the last biennial report the College has suffered a severe loss in the death of Prof. H. H. Dinwiddie, Chairman of the Faculty from 1883 until his death in December, 1887. To his untiring labors and wisely directed devotion to the cause of industrial education, the College is indebted for much of its success. He has left the impress of his intelligent enthusiasm in the cause of agricultural and mechanical education upon the history of this College, for which he labored with such unselfish zeal.

ATTENDANCE.

During the session of '86 and '87, 176 students matriculated. During the session '87 and '88 there was an attendance of 214. One hundred and ninety-five have been enrolled during the present session. During the session of '87 and '88 there were 101 students in the fourth class, which is common to both courses. In the third, second and first classes there were 31 students taking the agricultural course, and 82 the mechanical course. During the present session the enrollment has been 89 in the fourth class, 33 in the agricultural course, 73 in the mechanical course.

VISITING COMMITTEES.

During the summer of '87, by authority of your honorable body, I attended the meetings of the State Horticultural Society, the State Grange of Patrons of Husbandry, and the State Farmers' Alliance. I was cordially received by each of these bodies, and invited each of them to appoint a committee, whose duty should be to visit the College and inspect its workings, that they might report to their several bodies, the representative organizations of our industrial people, as to how far the College was carrying out the objects of its endowment.

During the session of '87 and '88 the College was visited by committees from each of these bodies, and their reports published in the State press were very gratifying to the authorities and friends of the College. In this connection I respectfully recommend that your honorable body renew the recommendation made two years since, requesting the Governor to appoint each year a visiting committee, whose duty shall be to visit the College during each session and report to the Governor.

The letter addressed to His Excellency, Governor Ireland, read as follows:

To His Excellency, John Ireland, Governor of Texas:

Sir—The Board of Directors of State Agricultural and Mechanical College, by unanimous vote, and looking to the best interests of the institute, in order to bring the actual work of the College before the agricultural and mechanical as well as other citizens of the State, respectfully suggest to your Excellency the propriety of the appointment, by the Executive of the State, of five, seven or more persons, eminent in their several callings, as a board of visitors, to attend the annual commencement exercises of the College, for the purpose of inspecting its working, its progress made in teaching, suggesting improvements for the betterment of the institution, and make a report through the Governor to the Legislature, to the end that it may be known if the College is being managed and conducted for the purpose and design for which it was organized, and that His Excellency, the Governor, recommend that an appropriation be made by the next Legislature to pay the expenses of the board of visitors actually incurred in the performance of such service.

Respectfully, your obedient servant,

LOUIS L. MCINNIS,
Secretary of Board, etc.

FARMERS' INSTITUTES.

While the primary object of the College should be kept steadily in view, viz.: The practical education of the young men of the State, yet there is no means by which the College can be rendered more immediately useful to the agricultural classes than by holding Farmers' Institutes in different portions of the State. This will bring the professors in direct contact with intelligent and progressive farmers, and will be of mutual advantage. This feature has been inaugurated with marked success in several of the Western and Southern States. I respectfully urge this step as the best means of closely identifying the College with the agricultural people of the State, and to accomplish this end I respectfully recommend that an appropriation be asked for to defray the expenses of holding these institutes.

LABOR FUND.

The regulation of the labor to be required of the students is the most difficult feature in the management of the College. It is the policy of the College to require from six to ten hours per week of practical work from each student and that this work shall be instructive. It is difficult in some departments to distinguish between instructive and non-instructive labor.

The most successful agricultural colleges have, to some extent, solved this problem by providing a labor fund from which students are paid for all productive labor. Student labor must necessarily be expensive, but if the College reaps benefit from the labor, the student should be remunerated for the work done. I beg leave to call attention to the following extract from a recent report of the Board of Trustees of the Mississippi Agricultural College: "We deem it essential that this work be rigorously exacted except in cases of sickness, and we respectfully urge that the Legislature hereafter make a specific appropriation of say seven thousand dollars for each year for student labor, to be used for no other purpose. This labor is not very valuable to the College, but we regard it as of supreme importance that the Board of Trustees be enabled to exact it. As the object of the College is to make intelligent and progressive farmers, we deem it essential that each student should be inured to farm labor." As further evidence that the appropriation of this labor fund is attracting the attention of the friends of agricultural colleges, I would call attention to the following extract from the recent address of the master of the National Grange: "Many of you who are to-day connected with the management of our State universities need no reminder of the constant inquiry, 'is there any opportunity for a boy to perform some kind of labor while at shool to help pay his expenses.' In some States there is a strong effort being made to secure a State appropriation for a labor fund to be used in developing college farms, and so give employment to these same boys and thus enable them to secure a good education. I believe it to be the duty of this order, whose strongest pillar in its superstructure is education, to consider with great care not only this but any practical plan that will enable these institutions founded by our United States government, to make such wise provision as will secure for these boys of limited means and opportunities the advantages of which they are now deprived." I am constantly in receipt of letters from young men in our State who desire to labor in order to defray their College expenses. If the labor fund is provided the State, in addition to enabling deserving young men to acquire a sound practical education, would receive some return in the cultivation of the College farm, garden and orchard, the care of stock, and the improvement and adornment of the campus. It is respectfully submitted that it is much better for the student to assist him by enabling him to help himself than by giving free scholarships, even if the scholarships should always be awarded to the most deserving. I respectfully recommend that the Legislature be asked to make an appropriation for this purpose. As evidence that our students desire this opportunity to work I would state there are now registered in this office more than thirty of our students asking for work.

DEPARTMENTS OF COLLEGE.

DEPARTMENT OF AGRICULTURE.

The facilities for instruction in this, the most important department of the College, have been much increased since the last report by the erection and equipment of a creamery, which is now in successful operation, and by additions to the agricultural implements. In order that the creamery may be more beneficial to the College, as well as to enable the department to give more thorough instruction in the important branch of stock breeding and raising, it is respectfully recommended that an appropriation be asked for to increase the herd of thoroughbred cattle, and to employ a capable foreman of stock. If the college can be made a center of influence for developing the stock and dairying interests, the State will be amply repaid for any reasonable amount expended for this purpose.

DEPARTMENT OF MECHANICAL ENGINEERING.

During the fall of '87 there was erected in this department a forge shop. This was equipped last spring and opened last November, with a competent instructor in blacksmithing in charge. This is an improvement which has been much needed, and it adds very much to the completeness of the mechanical department. With the appropriation made last spring, several lathes, a universal milling machine and many small tools have been added to the equipment of the machine shop, so that for the next two years there will be nothing needed for the machine, blacksmith and carpenter shops, except the fund to meet current expenses, including purchase of materials and supplies. A small but well equipped foundry would add very much to the facilities of this most useful department.

We can now offer our students a good course in carpentry, blacksmithing and machine work, but we have no means of imparting instruction in casting and moulding. With the foundry the mechanical department would be reasonably complete, but we cannot expect to take rank with the best mechanical schools without this important equipment.

DEPARTMENT OF HORTICULTURE AND BOTANY.

This department was established in June, 1887, as indicated in the last biennial report, and has already made commendable progress. During the winter of 1887 there was erected a small propagating and green house; the College orchard has been improved and is now in fair condition. This department is expected to supply the mess hall with vegetables and fruit and should be so developed as to supply all that is needed for the use of the students. If one has enjoyed a visit to the display of Texas Horticultural Society at Tyler during the past three summers, no argument is needed to convince him that Texas is destined to become a great fruit and vegetable producing State, and that therefore the proper development of the horticultural department of this college will amply repay the State for money expended. There is need of many improvements to place this department in the state of efficiency that its importance justifies, but as a slow but steady growth is best, I respectfully recommend that the estimates for the next two years include only those improvements that are necessary to give the department sufficient efficiency to impart profitable instruction. The first need of this department is a properly constructed building, equipped with evaporator, bleacher and such other appliances as are needed for fruit evaporation and canning.

In the laboratory there is needed a supply of microscopes and other appliances to enable students to investigate efficiently plant diseases. This equipment will enable the department to make good progress within the next two years, and when it is remembered that no appropriation has been made for equipping this important department, I hope this request will be deemed reasonable. In addition there will be needed an annual appropriation to meet current expenses.

DEPARTMENT OF CIVIL ENGINEERING AND PHYSICS.

This department was also established in June, 1887, and has added much to the efficiency of our course of study. With the appropriation made last spring the department has been well enough equipped to meet all the requirements of the college for the next two years, so that no appropriation is asked other than that necessary to meet the current annual expenses, including material for testing machines and repairs to instruments in the physical laboratory.

DEPARTMENT OF VETERINARY SCIENCE.

This department was established during June last and has been in successful operation during the present session. With the appropriation made last spring the department has been fairly well equiped, and there is now in course of erection a small but conveniently arranged stable for the treatment and study of animal diseases, with facilities for dissecting, and thus practically studying the anatomy of our domestic animals. Texas is the greatest stock-growing State in the Union, and it is suggested that no branch of industrial education is more important than instruction in scientific stock breeding. In this connection it is respectfully submitted that, following the example of other States, Texas might reap a rich reward by establishing a State veterinary service in connection with the veterinary department of this College. For the purpose of instruction only in this department no appropriation is needed for the next two years other than a small sum to meet current expenses.

DEPARTMENT OF CHEMISTRY AND MINERALOGY.

As scientific investigations can be made in but few fields of the material world without the aid of the chemist, among the first and most important needs of a technical school is a properly constructed and well equipped chemical laboratory. It is respectfully urged that the most important improvement now needed at the College is a laboratory building. Our facilities in chemical apparatus are sufficient to meet our present needs, but we have no room suitable for a laboratory. We should be supplied with a building properly constructed, with thorough ventilation, and hoods and flues arranged to provide for the escape of noxious and poisonous gases so as to protect the health of those who must work in chemical investigation. The work required in chemical analysis, in connection with the experiment station, increases the need of this most important improvement. I respectfully recommend that an appropriation be asked for this specific purpose.

DEPARTMENT OF DRAWING.

This department was established in June last and is now in successful operation. With the small appropriation made last spring some models and desks have been purchased and a good start has been made.

As drawing is the language of the mechanic, the development of the department should keep pace with the growth of the College, and to that end I respectfully recommend a small appropriation for the next two years to add to the equipment and to meet current expenses.

DEPARTMENTS OF MATHEMATICS, ENGLISH AND HISTORY, AND MODERN LANGUAGES.

These departments give that instruction which is absolutely requisite to the intelligent and profitable study of the technical departments. With the exception of a small appropriation to procure a set of maps for the study of history, no money is needed for these departments during the next two years.

DEPARTMENT OF MILITARY SCIENCE.

As the law of Congress requires instruction to be given in military tactics, this department is maintained in a spirit of honest compliance with the conditions of the grant accepted by the State. Instruction in this department, while it does not interfere with the industrial departments, is thorough as far as it goes, and is invaluable in maintaining discipline and inculcating in our students habits of neatness and promptness, and developing in them a just view of the respect and obedience which every citizen owes to the laws and constituted authorities.

AGRICULTURAL EXPERIMENT STATION.

The act of Congress establishing the Agricultural Experiment Stations in the several States, makes each station a department of the college with which it is connected, but provides that no part of the funds appropriated can be used for college purposes. In accordance with that law the station here is a department of the College, and the director of the station is a member of the Faculty and delivers a course of lectures on experimental agriculture. The station was inaugurated last January. The annual report of the Council, which will be made next January, will give a detailed account of the work for the last year. It is deemed proper, however, in this report to refer to two subjects that are now being investigated, as they are of prime importance to the State, and it is hoped that the Legislature will make an appropriation to assist the station to complete these investigations. The following statement in regard to these experiments has been prepared, at my request, by the director of the station :

" A careful study of the disease known as cotton blight has been made in several portions of the State and the work is still being prosecuted; a report of the results obtained will be published before the first of January. It will be necessary to continue the investigations in the line of experiments to find preventives, and it is desirable to make these tests on land that is subject to the ravages of the disease where cotton is extensively grown. A new line of work has been started jointly with the Experimental Station of Missouri—work suggested by Dr. P. Paquin, Veterinarian of the Missouri Station, with the expectation of finding a practical preventive of Texas cattle fever. The Missouri station has been testing various methods for inoculating cattle to prevent transmission or the reception of fever germs, and the result of their work indicates that cattle may be inoculated and disinfected so as to insure safety in shipping either North or South at any season in the year. The work proposed for the coming year includes shipping disinfected cattle North and inoculated cattle South in sufficient numbers to demonstate fully the value of the treatment. To prosecute the work in a satisfactory manner more means will be required than can be furnished from station funds; the value of a discovery of a preventive to the spread of this disease to the State is so great that it seems desirable to petition the Legislature to appropriate funds for the purpose of making a complete and exhaustive test."

It is also very desirable to establish branch experiment stations. As the State has several farms in connection with its penal institutions situated in different parts of the State, it is believed that with little expense these branch stations can be inaugurated. It is respectfully recommended that steps be taken by your honorable body to establish a branch station on each of these farms. For these purposes it is respectfully recommended that the Legislature be asked to make an appropriation. For a more detailed account of the several departments I respectfully refer you to the reports of the professors herewith submitted and made a part of this report.

INCREASE IN NUMBER OF DEPARTMENTS.

It is believed that in the near future the development of our mineral resources will create a demand for instruction in metallurgy and mining engineering, and it is respectfully recommended that the Board of Directors take steps looking to the supplying of that demand. With this exception it is not believed that the College will need any further provision for additional technical departments during the next two years.

HEALTH OF STUDENTS.

During the past two years the health of students has been good, with the exception of an epidemic of mumps and measles. No deaths have occurred. In the summer of 1887 a plain but commodious frame building was erected for an infirmary and surgeon's residence. To this was due, in a great measure, the recovery of quite a number of serious cases of complicated measles. The want of a hospital building has been felt ever since the organization of the College, and that this has been supplied has added much to the comfort of the students.

LIBRARY AND READING ROOM.

This contains three thousand six hundred and ninety-six volumes and eighty papers and periodicals. A well selected and varied library is a factor in the education of young men, the importance of which can not be overestimated. A large number of agricultural and scientific papers, as well as several of our State papers, have been contributed to the reading room or furnished at reduced rates. It is highly important that the library should continue to grow, and the importance of an annual fund for this purpose is respectfully urged.

MUSEUM.

During the past year a collection for a museum has been commenced. In a scientific school this is a most important department. Instruction cannot be imparted successfully in scientific subjects unless it is accompanied with the characteristics and properties of the objects studied. It is not specially desired to collect a museum of curiosities, but it is very important that we should have here a complete exhibit of the minerals and agricultural products of our State, including woods, building materials, oils, etc., etc. A small sum judiciously expended each year will soon make a very important addition to our facilities for promoting industrial education. In this connection, and to further this end, initial steps have been taken to connect the mechanical and civil engineering and chemical departments with the

STATE GEOLOGICAL SURVEY,

and I respectfully recommend that your honorable body take action looking to an intimate connection between the College and this important work. This will enable the College to be of direct and immediate assistance in developing the material resources of the State, and the collections made will enable the faculty to acquaint the students with the vast resources of our great State.

REQUISITES OF ADMISSION.

To enter the College an applicant must be in his sixteenth year, or at least must have attained a degree of physical and mental advancement corresponding to that age. He must be free from contagious or infectious disease, or any deformity that would unfit him for the performance of his duties as a student of this College. He may be required to furnish evidence that he has not been dismissed from another institution of learning and that his moral character is good.

The mental attainments necessary for entering on the course of study comprise a fair knowledge of arithmetic as far as proportion, of descriptive geography and of elementary English grammar and composition.

EXPENSES FOR SESSION OF NINE MONTHS.

Incidental fee	$ 5 00
Physician's fee	5 00
Maintenance, fall term	45 00
Maintenance, winter	50 00
Maintenance, spring	45 00
Total	$150 00

In addition to the above a charge of $5 will be made to cover possible damage to the College property and the cost of chemicals and other material used by the students. Incidental and physician's fees are payable on entrance, whether at the beginning of or during the session and cannot be refunded. Maintenance includes board, fuel, washing, lights, room rent, bedsteads, mattresses, pillows, tables, washstands, chairs, wardrobes, buckets, basins and slopcans, all of which the College furnishes.

UNIFORMS, BOOKS AND STATIONERY.

A neat uniform of cadet gray cloth is furnished here at a cost of from $15 to $20, depending on sizes. These uniforms are made by contract and students are required to purchase from the contract tailor in order that uniformity may be secured in the cut and quality of the clothing and that parents may be protected from imposition by irresponsible persons. The contract suits are carefully inspected by the commandant of cadets and thus the full value of money expended for them is secured.

Books and stationery may be obtained here. They will probably cost about $5 to $15 per session.

GROUNDS AND BUILDINGS.

The pressing need for additional accommodations and equipment has prevented much expenditure in the ornamentation of the grounds. It is hoped, however, that this important feature may now be prosecuted by a sufficient annual appropriation to carry out the systematic improvement of the campus already agreed upon. The buildings are all in good repair. In order to preserve them, it is absolutely necessary annually to expend a sum in repairs. As preservation of property is true economy, it is hoped that an appropriation for this purpose will be granted.

CAPACITY OF ACCOMMODATIONS.

The College can now comfortably accommodate about 150 students. When the new dormitory is completed (which will be in the spring) there will be accommodations for 225 students. While it is believed that the number of applicants will exceed that number within the next two years, yet it is not deemed necessary to ask for any increase of accommodations at the present time, for it is submitted that it will be better to develop and improve the College internally so as to be better prepared to instruct a larger number of students.

EXPERIMENTAL WORK.

Since the organization of the agricultural experiment station, all experimental work has been carried on under the station. I respectfully refer to the forthcoming report of the station for statement of experiments made, with their results.

IMPROVEMENTS.

Owing to the liberal appropriation of the Twentieth Legislature and the wise economy of the Board of Directors, the past two years have been marked by more material improvements and additions to the College property than any similar period in its history. During the summer and fall of 1887 there were erected: Pfeuffer Hall, named in honor of Hon. George Pfeuffer, late President of the Board of Directors, a two-story brick building, of twenty-five rooms, with accommodations for seventy-five students; a frame building of seven rooms for hospital and surgeon's residence, a frame building as residence for the foreman of the farm, a creamery building with complete equipment, a small propagating and green house, a brick blacksmith shop, with its equipment, four underground cisterns, besides numerous repairs to the buildings. The cost of these improvements will appear in a subsequent portion of this report.

With the appropriation made by the called session of the Twentieth Legislature the following improvements have been commenced, some of which are completed: Austin Hall, a two-story brick dormitory, containing twenty-five rooms, with capacity to accommodate seventy-five students; two frame professors' cottages; enlargement and repair of the college barn; addition to cattle shed; four underground cisterns; complete repairs to the outside of all the College buildings, and as far as the means would permit, the inside; Nicholson pavement in the machine shop; fencing the remainder of the College lands, about 850 acres, and repairing the College fences. The College property is now in good condition, and will only require a small annual expenditure to keep it in good repair. Plans for the Assembly Hall have been drawn and contract let for the erection of the same, with the exception of all the finishing work. It was found that the money appropriated would not finish a building of sufficient size to meet the demands of the College, and therefore it was deemed better to erect the walls and cover in a suitable building, awaiting a further appropriation to finish the building. It is respectfully recommended that the estimates for the next two years include a sum sufficient to finish this much needed building.

With the same appropriation several of the departments have been well equipped, and a hospital erected for the veterinary department.

IMPROVEMENTS BELONGING TO THE AGRICULTURAL EXPERIMENT STATION.

Under the law of Congress, during the first year $3,000 of the annual appropriation for experiment stations could be spent for buildings, and thereafter an amount not exceeding five per cent of the appropriation, or $750. Under this provision of the law the following improvements have been made: A large silo with three rooms, each sixteen feet square; two cottages for laborers; and a large shed for cattle feeding. In addition the station bore one-half the expense of building and equipping the creamery and propagating house.

FINANCIAL AFFAIRS.

This portion of the report covers the period from the close of last report, January 1, 1887, to June 1, 1888, close of the last college year, with a statement of the disposition of the State appropriation for the current year.

From January 1, 1887, to March 1, 1887, there was received from the State treasury $1,848.20, being the balance of the State appropriation remaining unexpended at the date of last biennial report January 1, 1887. This was expended in paying salaries of officers and employes for the months of January and February, 1887, as indicated in the report referred to.

From March 1, 1887, to June 1, 1888, there was received from the State Treasury:

General revenue	$25,000 00
University fund	5,000 00
Total	$30,000 00

This was expended as follows:

First for improvements—

Pfeuffer Hall, building	$11,367 21
Furniture	260 79
Total	$11,628 00
Hospital	$2,015 07
Farm House	1,279 87
Creamery	772 09
Smith shop	817 80
Cisterns	851 84
Gas	288 83
Propagating House	290 33
Total improvements	$17,943 83

Second, current expenses:

Salaries	$7,257 89
Mechanical department	410 46
Chemical department	498 14
Mathematical department	35 75
Drawing department	92 15
Agricultural department	577 09
Library	500 00
Horticultural department	587 19
Repairs	964 13
Section room furniture	207 57
Educational exhibit	74 75
Printing	500 00
Museum	188 40
Expenses attending Agricultural and Mechanical convention	137 95
Incidental expenses	24 70
Total	$12,031 47
Grand total	$30,000 00

This left a balance, June 1, 1888, of appropriation made by the Twentieth Legislature of $5,000.00 Owing to the increased attendance during the session, 1887–88, there was a small surplus arising from the maintenance of students of about $4,000.00 which, with the unexpended interest on United States endowment at that time, $2,966.53, gave the Board the sum of $11,966.53 to meet the current expenses of the College from June 1, 1888, to March 1, 1889, the end of the appropriation year. This sum would not have sufficed, had it not been for the liberal appropriations of the called session which provided for a portion of expenses which otherwise would have been a charge upon the annual income.

The special session of the Twentieth Legislature in May last made the following appropriations for improvements as stated:

To erect dormitory and assembly hall	$20,000 00
For furnishing same	2,000 00
For repairing College buildings and Professors' residences	9,000 00
Water supply	2,000 00
Erecting barn	1,000 00
Equipping Mechanical Department	1,500 00
Fencing College land and repairing fences	2,500 00
Equipping Civil Engineering Department	1,000 00
Equipping Veterinary Department	1,500 00
Equipping Drawing Department	500 00
For work stock and farm implements	500 00
Total	$41,500 00

As the Board of Directors did not authorize expenditure of this fund until their annual meeting in June last, and the work under said appropriation is still in progress, a complete report can not be made of the disbursement at this time. The following statement is made of the estimated cost of improvements uow being made:

Dormitory	$9,000 00
Assembly Hall (present contract)	14,000 00
Furniture	2,000 00
Water supply	2,000 00
Professor's residences	3,200 00
Repairs to the College building	5,800 00
Barn	1,000 00
Equipment, mechanical department	1,500 00
Equipment, civil engeering department	1,000 00
Equipment, veterinary science	1,500 00
Equipment, drawing	500 00
Fencing	2,500 00
Work stock and farm implements	500 00

At the end of the appropriation year all the above amounts will have been expended.

INTEREST ON ENDOWMENT ARISING FROM UNITED STATES LAND GRANTS.

The State receives from United States land grants for this College 180,000 acres of land scrip; the scrip was sold in 1871 at eighty-four cents per acre, and the proceeds invested in seven per cent State bonds. The amount realized from sale of scrip was $156,000, and the bonds purchased amounted to $174,000. In 1876, $35,000 with accumulated interest was invested in six per cent State bonds. This now forms the permanent endowment of the College. By the conditions of the land grant and the laws of the State, the interest alone of this fund is available, and that only for the pay of professors and officers of the college.

Bonds.	*Rate.*	*Interest.*
$174,000.00	at 7 per cent	$12,180 00
35,000.00	at 6 per cent	2,100 00
Total annual interest		$14,280 00

Amount disbursed from this fund:

Payment of professors and officers Jan. to June, 1887	$7,059 90
Payment of professors and ocffiers June, 1887, to June, 1888	14,030 00
Total disbursed	$21,089 90

Receipts January 1, 1887, to June 1, 1888	$21,424 00
Disbursed	21,089 90
Balance	$334 10
To which add balance on hand January 1, '87	$2,632 43
Total balance	$2,966 53
Annual interest	$14,280 00
Total amount available for session 1888 and 1889	$17,246 53
Set apart to pay professors and officers June '88 to '89	17,000 00
Leaving balance June 1, 1889	$246 53

SALARIES OF PROFESSORS AND OFFICERS.

The following are the salaries now paid from College funds to the several officers named:

Chairman of the faculty	$400 00
Three professors at $2,250	6,750 00
One professor	2,000 00
Two professors at $1,500	3,000 00
Three associate professors at $1,000	3,000 00
One adjunct professor	1,000 00
Five assistant professors	1,890 00
Two instructors	1,275 00
Foreman of carpenter shop	720 00
Foreman of farm	800 00
Foreman of garden and orchard	500 00
Agent of board	750 00
Steward	1,500 00
Janitors	500 00
Bookkeeper	200 00
Total	$24,285 00

The annual income from endowment is $14,280.00, leaving a balance to be paid out of the State appropriation of $10,000.00.

The surgeon receives a salary of $900 per annum, which is paid from fees charged students for that purpose.

NEEDS OF THE SEVERAL DEPARTMENTS OF THE COLLEGE ON AN ECONOMICAL BASIS.

In order that the expenses of the students may be made a minimum, and thereby the practical education afforded by the College enjoyed by the greatest number of young men from the industrial classes of our people, the College should have an annual income sufficient to pay the salaries and wages of all officers and employes absolutely necessary to its successful operation, and, also the other expenses incidental to its work as an industrial institution, and to keep the buildings, grounds and equipments in thorough repair. The following estimate of annual needs of the several departments is appended:

The annual amount stated below is in addition to the interest on the endowment, which is by law set apart to pay the officers and professors and which is now entirely used to pay the professors of the college. The annual appropriation for maintenance and support for the past six years has been $15,000. The growth of the college has been such that the increase of the departments necessitates an increase in the annual expenses. It is respectfully recommended that the Legislature be asked to make this increase in annual appropriation in order that the Board of Directors may be enabled still further to reduce the cost of maintenance to the students. Should the Legislature grant the appropriation here asked for it is believed that the expenses for the students can be, with safety, materially reduced.

ESTIMATE OF ANNUAL EXPENSES FOR A. & M. COLLEGE.

To pay professors and officers	$10,000 00
Agricultural Department, annual expenses	500 00
Mechanical Department, annual expenses	500 00
Drawing Department, annual expenses	250 00
Civil Engineering and Physics Department, annual expenses	500 00
Horticultural Department, annual expenses	500 00
Chemical Department, annual expenses	500 00
Veterinary Department, annual expenses	500 00
Repairs, annual expenses	1,000 00
Library and Reading Room, annual expenses	1,000 00
Improvement of grounds, annual expenses	1,000 00
Purchase of fine stock	1,000 00
Student labor	1,000 00
Holding Farmer's Institutes	500 00
Expenses of Members of Board	250 00
Advertising, printing, stationery and postage	1,000 00
Total annual expenses	$20,000 00
For experiment stations, investigation of cattle fever and establishing branch stations	$2,500 00

It is earnestly hoped that the improvement in the college property may be continued during the next two years, and to that end the following needed improvements are asked for:

For two years:

Chemical Laboratory, building and equipment	$10,000 00
Building for Horticultural Department as previously spoken of	1,000 00
Foundry building, cupola and equipment	1,500 00
Completion of Assembly Hall	7,500 00

OTHER IMPROVEMENTS.

There are many other improvements to the college property which would add much to the advancement of the college, such as a thorough system of steam heating, graded walks, electric plant for lighting, brick carpenter shop, a system of water works, houses for employes, professors' residences, etc., but it is believed that the improvements already asked for are those which are now pressing and necessary to the continued growth of the college.

RECEIPTS AND DISBURSEMENTS FOR MAINTENANCE OF STUDENTS.

In this exhibit, "from Agricultural and Mechanical College," includes all money received from all sources other than the State appropriation, viz: From students, professors, officers, sale of farm produce, etc. For "Agricultural and Mechanical College" includes all money expended for the maintenance of students, which includes board, washing, fuel, lights, medical attention, text books and incidental expenses; the pay of all officers and employes, except those paid from State appropriation, and all expenses incidental to the maintenance of the students.

RECEIPTS.

Balance on hand Jan. 1, 1887	$7,037 22
Error in last report	25 00
Receipts Jan. 1 to June 1, 1887	7,073 32
Receipts June 1, 1887, to June 1, 1888	30,073 43
Total receipts and balance Jan. 1, 1887, to June 1, 1888	$44,208 97

DISBURSEMENTS.

Jan. 1 to June 1, 1887	$12,321 71
June 1, 1887, to June 1, 1888	25,078 82
Total receipts	44,208 97
Total disbursements	37,400 53
Balance June 1, 1888	6,808 44

There were some outstanding bills against this balance which reduced it to about $4,000 the amount previously mentioned in this report as the profit made by the College. This profit represents the only income of the College derived from this source, as in the expenditure of the balance the College only acts as agent for its patrons, spending the money for the actual maintenance of the students.

INVENTORY.

A complete inventory of College property has just been made which shows property to the value of $301,270. This exhibit is hereto attached marked Exhibit A.

DETAILED EXPENDITUTES.

I submit herewith a list of all warrants paid by Secretary from January 1, 1885, to June 1, 1888, marked Exhibit B.

An account is kept in this office with each of the several departments of the college, said accounts are credited with the amounts appropriated to each by the Board of Directors, and charged with all the expenditures made in pursuance of the orders of the Board. When an account has been certified to as being correct by the head of the department it is examined and audited by the agent of the Board, who then draws his warrant on the Secretary, specifying against what appropriation said warrant is drawn. The Secretary pays the agent's warrants by drafts on the fiscal agent, who is placed under a $30,000 bond. By a wise order of the Board the Secretary is forbidden to pay any warrant after the amount appropriated for the account against which it may be drawn has been exhausted.

CONCLUSION.

In conclusion the Chairman desires to bear testimony to the zeal and faithfulness of the officers and professors of the college, and to acknowledge his gratitude for the support which has been accorded him in the discharge of his duties.

Respectfully submitted,
Louis L. McInnis,
Chairman of the Faculty.

REPORT OF THE AGENT.

To the Hon. C. C. Garrett, President of the Board of Directors, State A. and M. College:

SIR: In making to you this my second report as Agent of the Board of Directors, it affords me the utmost pleasure to congratulate the honorable Board upon the success that has attended the able management of the College since my last biennial report, and for its substantial progress and present healthy condition.

The people of Texas, through the Legislature, have shown an appreciation of your valuable services by affording you the necessary means to develop the institution, and this should encourage you to ask for such additional appropriations as may be necessary to still further increase the usefulness of the College.

The money appropriated by the Twentieth Legislature has been expended, as will be shown by the secretary's report, in the erection of a two-story brick dormitory with capacity for seventy-five students, named in honor of the late President of the Board of Directors, "Pfeuffer hall;" a hospital, long needed for the accommodation of the sick, with surgeon's residence attached, and a residence for the steward of the College, besides four large cisterns, repairs, etc.

The appropriation made by the Legislature in extra session, in April last, has been, in part, expended in building an additional two-story brick dormitory, sufficient for the accommodation of seventy-five students, named in honor of Stephen F. Austin, of early Texas fame, "Austin hall;" the erection of two handsome cottages for professors, with cisterns for each, repairing and painting residences, College buildings, barns, stables and other outhouses. Additional buildings have been put up, and others are under-construction, for the better care and handling of stock; the readjustment and repairs of stock yard fences. A portion of the fund has been appropriated for building an assembly hall, a contract for which has been secured, but the work has been delayed by bad weather and the impossibility of getting brick.

About eight hundred acres of the outlying College land has been substantially fenced, adding that area to pasturage. The cost of fencing was increased by unnecessary roadways across the land.

The division of several of the departments of the College into separate departments, and the organization of additional departments, have increased expenditure, by the necessity of properly equipping them.

Within the period embraced in this report, the "experiment station" has been added and organized, by your honorable Board, as a department of the College, thereby materially increasing the advantages of the practical education here to be obtained.

The substantial improvements made to the College by your honorable Board, since my last report, are manifest to any one familiar with the institution, adding nearly twice to the value of all improvements made since the property was first turned over to the Board of Directors.

In the disbursement of money for College purposes the utmost economy has been observed consistent with the best service. This has been secured by obtaining competitive bids for all supplies furnished and work done.

The appropriation made by the Legislature in April last, with which to build a "chapel and assembly hall," was less than the sum asked for by the Board, and much below an amount adequate to put up a building suitable to the growing necessities of the College. Therefore, in order to finish the chapel, already begun, in accordance with plans and specifications and in conformity with other public buildings of the State, it will be necessary to ask for an appropriation of $10,000, and it is respectfully suggested that you ask the Legislature for that sum.

For the last six years the Legislature has appropriated for the maintenance and regular contingent expenses the sum of $15,000 per annum. To render the course of instruction more efficient your honorable Board very wisely separated horticulture and botany from agriculture. A like division was made by separating physics from chemistry, and you also organized a "department of veterinary science." This, of necessity, required the appointment of additional professors for these three chairs.

The erection of two brick dormitories and an assembly hall, a hospital, stewart's dwelling and two professor's cottages, besides other important improvements, as before stated in this report, in addition to your earnest desire to reduce the cost of maintenance to students, render it absolutely necessary that the appropriation of $15,000 referred to above be increased to not less than $20,000 per annum.

With this support the College will continue to grow in usefulness, and it is therefore recommended that you ask for the latter amount for the next two years.

An inventory of property taken two years ago showed the total value of property belonging to the Agricultural and Mechanical College of Texas at that time to be $228,972.47. The inventory taken December 15, 1888, shows a total value of $301,207, a tangible addition to the property of the College within the last two years of $72,234.53. Under the wise administration of your honorable Board and the generous appropriations and fostering care of the Legislature, the College grows in usefulness and in ability to give a better and higher education to the young men of our State.

The Legislature has always shown a just appreciation of the A. and M. College, and since the State has become able has given it that liberal support that meets the approval of the great body of the people.

Now, good economy and prudent forethought teaches that the property of the State should be preserved and the constant growth of the College fostered, and to do this it will take nothing less than the modest sums asked for its maintenance to secure continued success.

For details of matters herein contained I respectfully refer you to the itemized report of the Secretary of the Board.

I have the honor to be,

Very respectfully,
Your obedient servant,
T. M. Scott,
Agent.

REPORT OF THE DEPARTMENT OF AGRICULTURE.

A. AND M. COLLEGE, COLLEGE STATION TEXAS,
November 24th, 1888.

Prof. Louis L. McInnis, Chairman of Faculty:

SIR—In response to your official request, I beg leave to submit the following brief report for the agricultural department, 1888, and statement of needs for ensuing year:

I am gratified to note a steady increase in numbers of students taking the agricultural course, there being six students in the first class, eight in the second class, and eighteen in the third class, or a total of thirty-two students in the three upper classes alone, taking the agricultural course.

There are a number of students taking special courses in agriculture in addition to the number given above.

Instruction has been given in accordance with the following brief outline of course of study, as now laid down, and practice had as there stated:

FIRST YEAR—FOURTH CLASS.

Members of this class take up the study of domestic animals—origin, history, description, merits, objections, etc., of each of the different breeds of horses, cattle, sheep and swine—with suggestions on care and management, supplemented by examination and discussion of the stock owned by the College. This class also pursues the study of elementary agriculture, supplementing their work in the class-room by field tests with different crops and fertilizers, performing the entire work of planting, fertilizing, cultivating and harvesting in a field set apart for this purpose.

SECOND YEAR—THIRD CLASS.

Members of this class take up the study of dairying, including selection of milk stock, followed by the study of stock breeding. Members of this class do the entire work in the creamery, so far as their time will allow, under the direction of the professor or assistant, during the winter and spring terms.

THIRD YEAR—SECOND CLASS.

Members of this class pursue the study of cattle feeding during the entire year. The second class men have practice in the creamery during the fall term, and practice in cattle feeding during the winter and spring terms.

FOURTH YEAR—FIRST CLASS.

Students in this class pursue the following studies: Fall term, farm drainage; winter term, fertilizers; spring term, farm management—the whole supplemented by such practice as will best aid the studies pursued.

IN THE SPECIAL COURSES

Students are necessarily given considerable latitude in the choice of studies. It is believed that the special courses will prove a valuable addition to the curricula of the College. Giving, as they do, opportunity to young men of mature age to obtain an education in the special work they intend to follow, without the delay and expense necessary to complete a full course, their value can hardly be overestimated. It must be borne in mind, however, that to develop them properly will require time and a gradual increase in facilities and in teaching force.

An especial interest has been shown in creamery work, and I am confident that the work in this important line adds much of real value to the agricultural course. The dairy interests of our State are rapidly growing in importance, and the College should meet this growth with increased facilities for instruction. I would call attention to the need of adding to our stock of pure-bred animals now owned on the College farm. At least $1,000 could be profitably used in the purchase of pure-bred cattle alone, of the representative breeds, to say nothing of what could and should be used in stimulating and developing the great wool interests of the State.

In this connection also I cannot fail to urge that provision be made to enable the farm to secure a competent stockman. It will be impossible to advance this feature of the agricultural department properly without a competent man of this kind to attend to all details. To secure a good man will require at least $600 per year, with quarters furnished, but the outlay will be justified by the results.

There will be needed, also, the usual fund for current repairs and improvements—say $500 at least. We have been compelled this year to build, with department funds, a much needed barn for the proper shelter and control of bulls, a step made necessary by the extra room taken for the Experiment Station stock.

I would respectfully urge once more the great benefit which might arise from—the almost actual necessity existing for—a definite, stated labor fund to be used in the several departments in paying for uninstructive student labor. It is of course known and admitted that student work is, by virtue of its transient nature, employed at greater or less loss to the College. I submit, therefore, that, if student labor is to be employed by the College there should be provision, outside of department funds, made for its support. There can be no doubt of the advisability of encouraging, urging students to pay a portion of their College expenses by manual labor, and with this admitted, the argument in favor of a stated labor fund, seems, to my mind, irrefutable.

Respectfully submitted,

George W. Curtis,
Professor of Agriculture.

REPORT OF THE DEPARTMENT OF MECHANICAL ENGINEERING.

L. L. McInnis, Chairman of the Faculty:

SIR—Since making the last biennial report the equipment of this department has been materially improved by the addition of several machine tools and a number of small tools for fine measurements, and of a forge shop with a complete equipment for five forges. In this shop the blower, which furnishes the blast for the forges, is operated by a small engine built and set up by the graduating class of 1888. With these additions to the equipment and the extended course, it has been possible to make several valuable additions to the practical work of the department, and these latter additions apply not only to the quantity of work turned out by the students, but also to the quality. It has also been possible to make a number of changes in the methods of imparting instruction, but as these have been made gradually, and are not radical changes, it will suffice to say here that all lead to improvements. In the machine shop some of the tools might be duplicated with great advantage to the department, especially as the classes increase in size. At present we have, with one exception, the main features of industrial work represented, the exception being that we have no facilities for instruction in foundry work, such as moulding and casting metals. This work may be placed on a level with blacksmithing for importance, inasmuch as both are at the foundation of giving metals the various shapes which are necessary for their use in the arts and in manufacture. And as our classes reach a higher standard there will arise a demand for a knowledge of this work; not a demand for skilled workmen in this branch, but a demand for such a knowledge of the subject as to insure an intelligent, and in many cases valuable judgment, upon any question bearing upon this or kindred subjects, all of which may be obtained, to a great extent, from a comparatively short course in practical moulding and casting. Financially the department is on a good basis for the present work, but owing to the addition of the blacksmithing course a corresponding addition should be made to the fund set aside for running expenses. During the coming year an improvement will be possible in the course in carpenter work, owing to the fact that a greater difference can be made in the work of the two lower classes when the present drawing room is fitted up with benches and tools for that work.

Owing to changes in the teaching force necessitated by the resignation of the foreman of the shops, the department is somewhat at a disadvantage in regard to the outside work, but as an offset to this several changes in the methods of instruction have added to the efficiency of the actual teaching of the classes.

Student labor has been given a trial and from the results shown thus far it recommends itself in every way as a thing to be encouraged and fostered in every possible manner. In closing it might be well to say that the department seems to be in a good healthy condition and the work of the present year compares very favorably with that of the preceding years.

R. H. Whitlock,
Professor of Mechanical Engineering.

REPORT OF THE DEPARTMENT OF VETERINARY SCIENCE.

Prof. L. L. McInnis, Chairman of the Faculty:

Sir,—I hereby submit a report of the Department of Veterinary Science:

The instruction given by this department to the agricultural students, first class, consists of

I. Lectures on veterinary anatomy, comprising a discussion of the bones, articulations, muscles, digesting and respiratory trochs, genito-urinary apparatus, vascular and nervous systems and organs of special sense in the order named. The text book used is Fleming's translation of Choveau's Anatomy.

II. Special Pathology:

This subject is introduced by a brief consideration of general Pathology, embracing congestion, inflammation, thrombosis, embolism, hemorrhage, dropsy, hypertrophy, atrophy, degeneration, fever, collapse and death. Special pathology is divided into contagious and epizootic diseases, constitutional diseases, diseases of special apparatus, viz.: Respiratory, digestive, genito-urinary, vascular, nervous and locomotary, and is supplemented by parasitic diseases, tumors and morbid growths. The text books used are the works of Percival, Robertson, Williams, Liontard, Low, Steel and Hill.

III. Materia Medica and Therapeutics:

The history, manufacture, action, dose, prescribing, dispensing and administration in the various forms, of most drugs used by the veterinarian, receive thorough consideration and are followed by a brief notice of poisons and their antidotes.

The text books are Dun's, Bruce's and Bartholow's.

IV. Practice of two hours per week consists of visitation to any disabled animals about the premises and hospital work. This hospital work will consist of examinations for health and disease, administration of remedial agents in various forms, casting and securing animals, application of slings, bandages and dressings, normal histology of animal tissues, dissections, manner of making post-mortem examinations, and some minor surgical operations on the cadaver.

The four grades of work just specified are being carried out at the present time as well as circumstances permit, and when completed will be followed by the study of:

I. Obstetrics:

Embracing obstetrical anatomy, physiology and pathology, and all accidents and abnormalities incident to pregnancy and parturition.

II. Horse shoeing:

A short course of lectures will be delivered on physiological, orthopedic and surgical shoeing.

III. Sanitary medicine:

The relation of animal disease to the public health will be briefly discussed.

Zoology:

This subject was assigned to this department at the opening of the current year. The progress of the class has been fair only on account of the general qualification of its members and the facilities for illustration.

Veterinary physiology will occupy one hour per week during the second and third terms to the members of the second class. This will not only enable them to understand their own mechanism, but will also prepare them for the study of pathology the following year.

The equipment of the department consists of the skeletons of the horse, dog and parts of the ox, a collection of surgical and restraining apparatus, a well equipped dispensary, crude and refined drugs, optical and laboratory apparatus, Azoux's models of the foot, virgin and gravoid uterus, a few pathological specimens, and a respectable library of standard veterinary works.

I herewith present an approximate statement of the distribution of the funds of the department: Surgical instruments, optical goods, books and periodicals, drugs, appliances, models, glassware, etc., as per bills rendered, $950.

The balance of the funds will be consumed in the erection of a suitable hospital and dissecting room, 24x36 feet, provided with water, light, heat and all utensils. In order that the work may proceed systematically it will be necessary that an annual provision of $500 be made for constant and growing needs.

Respectfully submitted,

M. Francis,
Associate Professor of Veterinary Science.

November 23rd, 1888.

REPORT OF DEPARTMENT OF HORTICULTURE AND BOTANY.

A. and M. College of Texas.

Louis L. McInnis, Chairman of Faculty:

Sir—In obedience to your request, I have the honor to submit the following report on the organization and present needs of the department of horticulture and botany:

This department was established by the Board of Directors a year ago last June to represent at this College the great and growing horticultural interests of this State, and to give such courses of study as would enable a young man to acquire a good knowledge of the structure and functions of plant organs and of the correct principles which govern the growth and improvement of plants. To this end it has been the endeavor of its head to develop the department to meet these demands commensurate with the growth and development of the College.

The thing of first importance was to lay out such courses of study that would meet the peculiar needs of this State, which differs in its interesting flora and in its varied condition of climate, moisture, and in many cases in soils, from any other State in the Union. The courses in botany were so arranged as to form a strong scientific basis for the horticultural, and I may say several of the studies in other departments.

Students, the first year, are taught organography of plants or the gross anatomy of plants, so that they may converse freely and intelligently on subjects bearing on the organs and many parts of a plant, and be more able to understand its wonderful, vital and reproductive phenomena

The second year is spent in as an extended and exhaustive a study of the management and culture of the common fruits and vegetables found in our markets, as the development of the illustrative material will permit.

The third year is devoted to special subjects, which require much of the previous attainments of the student to thoroughly master and comprehend them. Grasses and other forage plants is a course that furnishes valuable knowledge to those that are interested in stock-raising or animal industries.

Economic and systematic botany acquaints the student with a large number of the important plant products of the world and with the natural orders of plants producing those products.

The third subject studied during this year is that of forestry. The needs of this addition to the courses for Texas students is self-evident from the fact that Texas has more treeless area than any other State, and moreover because she has an almost unlimited area of fine heavy timber lands that need the careful hand of the educated forester to foster and save them from the hands of the careless woodmen and devastating saw mill monopolies.

During the fourth year there are four subjects taught which introduce the student to special lines of work and investigation largely connected with the microscope.

The first subject, Fungi and Plant Diseases, deals with those low minute forms of plant life which produce mildews, blights, rusts, smuts, etc., so destructive and disastrous to higher plant life and growth. The student is required to study out their growth and anatomy under the microscope.

Vegetable Histology and Physiology are two subjects which play an important part in the proper understanding of the life and growth of plants, the functions of their organs, and the formation of their economic products.

A course in Horticultural Economy and Industries was added this year for the purpose of giving students an insight into the everyday work of horticultural pursuits and into the proper management and control of manufacturing horticultural products for the trade.

Last but not least is a course in Floriculture and Landscape Gardening, which prepares the student to adorn his home, town parks, drives and cemeteries, acquaints him with the propagation and management of all the common ornamental plants, both for greenhouses and outdoor work.

Next in importance to the courses of study is the development of the Illustrative material. This consists of orchards, gardens, vineyards, greenhouses, hotbeds, etc. This work has been carried to the extent that we now have a good substantial greenhouse prepared to propagate the less hardy plants, to keep a number of ornamental plants and to illustrate to students the forcing process in market gardening. This building has been probably the leading adjunct to the department in the way of furnishing illustrative material in most of the above courses. This building, however, is yet incomplete in its heating apparatus. It is heated by cheap flues, which in all modern well equipped greenhouses, are discarded as being expensive in the amount of loss of plants they incur by giving but a fluctuating, uneven temperature, dry air and giving off injurious gasses. I therefore respectfully urge that the flues be replaced by a hot-water system.

The orchards have been largely extended and refilled largely by stock propagated by the students in the nursery here. At present there are about

Sixty varieties of peaches,
Twenty varieties of pears,
Twenty-five varieties of apples,
Twenty-three varieties of plums,
And several varieties of apricots, figs, nectarines, quince, cherries and Japan persimmons. In the vineyard, set out last spring, there are fifty-seven varieties of the leading grapes, to which have been added several more this fall.

In the way of small fruits there are six varieties of blackberries, two of raspberries and twenty-eight of strawberries, all of which have been put out this fall.

To have in one collection all the species and varieties of trees that grow in this State, and also many of the most important in the United States, for experimentation and study, this department has begun an arboretum of over three acres, where these important steps may be developed. This fall this ground is being planted with several species, principally for the purposes of nurses for those that will be inserted later on.

The botanical laboratory has been partially equipped by the meagre means placed at my disposal. Much more is needed by way of microscopes, herbarium cases, reference books, etc., to make the laboratory equal to the pressing needs of the College.

OTHER NEEDS OF THE DEPARTMENT.

The growing demand for men especially fitted to superintend establishments for the preservation of fruits and vegetables, in both a dried and a canned state, and the needs of a more general and extended knowledge among the people of the State on the subject of evaporating and canning fruits, with the rapidly increasing interest in fruit culture, and the large plantations of orchards over the State, makes it imperative that something should be done at this College by way of instructing students to carry on the several operations involved in such work. I therefore respectfully urge that an appropriation be made for a building suitable for these purposes and to properly equip it to care for the fruits and vegetables raised here in the department grounds. Many bushels of fine fruits have been wasted here year after year, simply from the lack of proper facilities to care for them. To this building a fruit and cool storage room could be very appropriately added that would add much to the proper economy and illustration of the work in the department. Being thoroughly convinced that the College will lose largely year after year much of the products that would make this department almost, if not quite, self-sustaining if properly preserved and utilized, I deeply urge that an appropriation be made for the purposes stated above.

Respectfully submitted,

T. L. Brunk,

Associate Professor Horticulture and Botany, A. and M. College of Texas.

REPORT OF THE DEPARTMENT OF CHEMISTRY AND MINERALOGY.

Prof. L. L. McInnis, Chairman of the Faculty:

SIR—I herewith present report for the department of chemistry and mineralogy. Assuming duties on the fourth of last January, I instructed the first class in geology and in practical work in the chemical laboratory. The second class received instruction in chemistry, practical mineralogy and qualitative chemical analysis.

According to the present course of study I instruct the agricultural and the horticultural students of the first class.

First term. Three hours a week in agricultural chemistry; practice, six hours a week. The second class receive in chemistry four hours a week, and the B. S. A. and B. S. students of the class have practice three hours a week. First and second terms, the entire first class recite geology twice a week.

Second term. The second class recite chemistry three hours a week; the B. S. A. and B. S. students of the class practice six hours a week. First class B. S. A. and B. S. students practice three hours a week.

Third term. First class: students of the B. M. E. and B. C. E. courses practice four hours a week; students of the B. S. A. and B. S. courses practice three hours a week. Second class recite chemistry four hours a week; practice for the B. S. A. and B. S. students six hours a week.

The "practice" consists, beginning with the second class, of simple experiments, and working with glass, qualitative chemical analysis and determinative mineralogy, leading to the work in the first class of inautitative analysis and manufacturing chemistry. The work of the students has been on an average good, and in many cases excellent.

I have endeavored to make the efficiency of the department as complete as possible under the existing circumstances. The one important thing necessary for our successful advancement is a new laboratory building. As you are aware, the present assignment of rooms in the academic building was supposed to be only a temporary arrangement, until the State could provide other and better quarters. The need for a change is now much more important than ever. In consequence of the demands made upon us by the station and by the State geological survey, as well as by the increasing amount of work sent in by the citizens of the State, and the ever growing size of our classes in practical chemistry, we are forced to ask for more space, and earnestly urge its importance. In doing so we call your attention to the advantages of a separate chemical laboratory building. The prime need is that the building be constructed with reference to convenience of arrangement, a sufficiency of light and thorough ventilation. The latter can be best secured by providing good hoods for the escape of all noxious and poisonous gases. These hoods should be built into the building. They cannot well be constructed afterwards, and should be sufficient not only to protect the health of students, but to protect also the health of analytical chemists who spend the most of their time in the laboratory.

I have been forced during the present session to postpone some important experiments in theoretical chemistry, because there are no flues for the escape from the room of the poisonous gases generated in the experiments. Our water supply has been very poor and frequently resulted in delay of work. We have no quarters for any assay furnaces, and coal and coke furnaces should not be placed in the academic building. A chemical laboratory, unless placed in a basement, should be separated from the other buildings, as a means of safety in case of fire. The danger resulting from stored chemicals is very considerable; they should, when possible, be stored in a practically fire-proof room. The growth of the College as one of the leading institutions in the State, demands that the chemical department shall be commensurate in its growth with the other departments of the College, and fully abreast with the advancement made in this department of science. This growth can be best facilitated in a well equipped separate building, constructed with reference to the requirements of a modern laboratory. I commend this matter to a careful consideration.

The permanent fixtures in a laboratory, such as tables, desks, cases, shelves, water and gas supply pipes, waste pipes, storage, water tanks, sinks and hoods, are necessarily a considerable expense at first, but the cost of repair is always very small. By a rough estimate, I should think these fixtures could be placed in a new building at an expense of about two thousand dollars.

We have made some important additions to our apparatus from the station fund, and from the small margin saved from the College fund. So that now we are fairly well equipped with such material as is necessary for all ordinary analyses, including the examination of soils, waters, feed stuffs, plants, minerals, manure, furnace products, foods, medicinal chemicals, etc. We still need the following asparatus, amounting in all to about six hundred dollars: Additional platinum ware, a new gas combustion furnace, two new gasometers, parts of Hoffman's lecture apparatus, Scheibler's carbonic acid gas apparatus, glassware, Bunsen's apparatus for chlorine determination, Ullgreen's apparatus for carbon in pig iron, Geissler's vaporimeter, one assay balance, gas furnaces, muffles, crucibles, cupels, scorrifiers and tongs, one ore crusher, one large agate mortar, one plate with rubber for powdering ores, and small pieces of apparatus it is unnecessary to mention.

There being no revenue to the department from analytical work, and no compensation from students for their breakage and waste of chemicals, we of course expect our annual appropriation for actual running expenses.

I gratefully acknowledge the valuable services rendered me by my assistants, Messrs. Weppiect, Duncan and Adriance, respectively engaged in work for the station and for the College. The growth of the department has been greatly facilitated by the liberal views of yourself and of the experiment station council.

Respectfully submitted,

H. H. HARRINGTON, Chemist.

December, 1888.

REPORT OF THE DEPARTMENT OF CIVIL ENGINEERING AND PHYSICS.

Prof. L. L. McInnis, Chairman of Faculty A. and M. College of Texas, College Station, Texas:

Sir—In accordance with your request I beg to submit to you the following report of the work in, and the condition and needs of the Department of Civil Engineering and Physics. The classes in the department are doing as well as could be expected of them.

The first class pursued a course in railroad engineering during the fall term. The students were taught to run a railroad line, to take the level notes from the same, to set slope stakes and make the calculations for the volumes of cuts and fills. They studied the work theoretically in the class room, and in the field applied practically their theoretical knowledge.

During the winter and spring terms they will investigate the stress and strains in roof and bridge trusses resulting from various conditions of loading. They will also study the strength of materials, in order that having found the stress in a given member of a truss, they may then calculate the dimensions of the number to sustain that stress. If there is time, it is hoped that the class will do some designing before the end of the year. During the winter term the class use the testing machines, bought this last summer, and find by actual experiment the strength of various materials.

In the spring term the first class will go into the field and do surveying with the second class.

The students of the second class spent the fall term studying graphic statistics. They learned the methods of finding graphically the stress in numbers of a loaded truss.

During the winter term they study contracts and specifications.

In the spring term they take up surveying. They study the subject in the class room and then go into the field and do actual work with the various surveying instruments.

The third class study physics during the entire year, using as a text book Peck's Ganot.

Everything studied is illustrated and explained as much as possible by means of experiments made in the presence of the class.

The department is quite well equipped with appliances and instruments necessary to pursue the studies in the course of civil engineering as at present laid down in the cataloeue, and that course is as difficult as our present class of students is able to undertake. With the exception of some few things that will be bought with the money appropropriated last spring, there is nothing pertaining to the course of civil engineering that we need.

The only appropriation that the course in civil engineering needs is one of about two hundred dollars per year for current expenses. For the course in physics the department does not, I think, need any special appropriation, but simply one for repairs and such alterations and additions as may, from time to time, become necessary.

An appropriation of five hundred dollars per year will, I think, be ample for the department of civil engineering and physics.

Respectfully submitted,

J. H. KINEALY,
Associate Professor Civil Engineering and Physics.

REPORT OF THE DIRECTOR OF EXPERIMENT STATION.

AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS,
BRYAN, December 1, 1888.

Professor L. L. McInnis, Chairman of Faculty:

SIR—I have the honor to submit the following report of the work of the Experiment Station Department from June 15, to date. The annual report of the Experiment Station will give in detail the work of the Station since organization last spring.

In accordance with the plans adopted by the Board of Directors of the College and Experiment Station, at the meeting held in June, 1888, certain portions of the farm have been assigned to the Station for experimental work, and a plan adopted for divisions of feed stuffs, labor, etc., that is mutually agreeable to the several departments of the College.

A careful study of the disease known as "cotton blight" has been made in several counties in the State and the work is still under way. A report of what has been done will appear in a bulletin soon to be published.

In October last an agreement was entered into with the Experiment Station of Missouri, to jointly study what is known as "Texas fever" in cattle, work suggested by Dr. P. Paquin, State Veterinarian of Missouri, with reference to finding some practicable method of innoculating and disinfecting cattle so that shipments may be made with safety, north and south, at any time in the year.

Dr. Paquin has already made many experiments in disinfecting and innoculating cattle before exposed to this disease, and the tests promise so much that it is now proposed to make shipments of cattle after treatment to fully determine the value of the preventives.

Many persons in the State who are specially interested in horticulture are desirous of having branch Stations established in different localities in the State for testing fruits, plants, etc. For horticultural work in particular branch stations are essential, owing to the fact that the soil of the College farm is not adapted to the growth of many trees and plants.

The Station is planting a large number of varieties of fruit trees at College Station, and is duplicating a considerable part of the list at the Prairie View Normal School farm.

Other branch stations may be established on the several farms owned by the State, with moderate outlay of means, provided land may be assigned for such work and labor of convicts furnished.

The Superintendents and their assistsnts could oversee planting and cultivation of seeds, trees, etc., supplied by the Station, an officer of the Experiment Station occasionally visiting the farms and giving general directions in regard to the work.

I would respectfully suggest the advisability of laying the matter of establishing branch stations at the several State farms before the proper authorities for their consideration.

For the purpose of continuing the investigations in regard to "cotton blight," experiments with "Texas fever" in cattle and support of branch stations, I would respectfully recommend that the Legislature be petitioned to supplement the Experiment Station funds with an appropriation of five thousand dollars for each of the years 1889 and 1890.

Respectfully submitted,

F. A. GULLEY, Director.

REPORT OF DEPARTMENT OF DRAWING.

To the Chairman of the Faculty:

Sir—Considering that this is the first report from the drawing department, as a separate department, I feel justified in making the same rather full and exhaustive.

The course in drawing extends through four years. During the first year (fourth class) each student receives a short course in penmanship and then instruction in free hand drawing, which is partly geometrical free hand drawing, including lettering, and partly model drawing, using simple models at first and later the tools, etc., used in the shop.

This course is designed to teach the student to observe closely, and to train his eye to estimate distances, and to judge the directions of lines, and his hands to represent the same.

In the third class the course of study is divided, and the students choose between the agricultural and the mechanical course. Those pursuing the first continue the study of free hand drawing during the two following years, advancing from simple outline drawing to the study of perspective, the effect of light and shade, and then to the drawing of leaves, fruits, plants, etc., from nature, which work bears directly on their study of botany. In the second class they receive also some instruction in mechanical drawing in connection with their work in surveying.

The students pursuing the mechanical course begin the study of mechanical drawing in the third class, but since skill in free hand drawing is of great value to every engineer and draughtsman, the students are required to keep up their practice in this branch of the art by making free hand sketches of almost all drawings before executing them with the instruments.

In the third class they are taught the use of the instruments in the drawing of simple figures, geometrical problems and lettering.

In the second class the study of projection is taken up and applied to the drawing of different pieces of mechanism.

In the first class blue printing is taught as practised in our larger manufacturing establishments, and the knowledge heretofore acquired is applied to making finished drawings, general plans and details of machines and buildings, from measurment or from original design. The drawing in this class is of necessity intimately connected with the studies pursued in the engineering departments.

As it is the prime object of the instruction in drawing to develop the perceptive faculties of the students, and to teach them to express their ideas by means of drawings, it is essential that all drawing, as nearly as possible, be from the object.

This necessitates a complete set of models, both for the mechanical and the free hand drawing. For the latter we ought to have also complete sets of studies and a number of casts.

The last appropriation for the department has enabled me to furnish the new drawing room fairly well; to purchase a few instruments, models and studies, and to make our facilities for blue printing very complete; but it will require another sum of five hundred dollars to equip the department well for its present work.

Very respectfully,

F. E. Giesecke,
Instructor in Drawing.

REPORT OF THE DEPARTMENT OF MATHEMATICS.

Hon. C. C. Garrett, President Board of Directors:

Sir—The course of mathematics extends through four years, with daily recitations. In the fourth class the subjects taught are arithmetic and algebra begun; in the third class, algebra and geometry; in the second class trigonometry, mensuration and descriptive geometry; in the first class analytical geometry, mechanics and the calculus.

Throughout the course there are numerous practical exercises and original problems and demonstrations.

Owing to the increased duties of the head of the department, surveying has been transferred to the Department of Civil Engineering.

The progress of the classes has been as well as could be expected, when the lack of proper preparation for College work is considered.

Respectfully submitted,
Louis L. McInnis,
Professor of Mathematics.

REPORT OF DEPARTMENT OF ENGLISH.

Professor L. L. McInnis, Chairman oy Faculty:

Sir—Responsive to a request for a report from this department of the College, I will say that the Department of English is in good condition, and needs nothing but a complete set of modern wall maps.

Very respectfully,
W. L. Bringhghurst,
Head of Department.

A. and M. College of Texas, November 12, 1888.

REPORT OF THE DEPARTMENT OF MILITARY SCIENCE AND TACTICS.

Chairman of the Faculty, A. and M. College of Texas:

SIR—I have the honor to submit the following report of the Department of Military Science and Tactics:

This department owes its existence to the act of Congress endowing this and other similar Colleges, which act requires instruction in military tactics. To carry out this requirement of the law an officer of the regular army is detailed by the President of the United States to act as professor of the department, and as Commandant of Cadets, and the requisite arms, equipments and ammunition are furnished by the general government without cost to the College other than the necessary expense of repairs.

It is unfortunate that the wording of the said act simply requires instruction in military tactics, leaving the amount of time and study to be devoted to it entirely at the discretion ot the College authorities. The result of this indefinite requirement is evasion of the spirit of the law in many of the Colleges benefited by it, a deplorable lack of uniformity in the amount and kind of instruction afforded the students of the different Colleges, and, generally, a defeat of the purposes of the law in question.

After an investigation of this subject, I am assured that this College provides more liberally for the military instruction of its students than any other similar institution in the South, and yet, even here, the time devoted to this subject is inadequate to attain the results which I believe were contemplated by the law.

The cadets of this College are organized as a battalion, subject to military discipline, under the immediate command of the Commandant of Cadets. The battalion consists of four cadet companies with their full complement of officers and non-commissioned officers, and the battalion staff. The officers from the first class, sergeants from the second class, and corporals from the third class are appointed by the Chairman of the Faculty upon the recommendation of the Commandant, and are required to assist in the maintenance of order at all times.

The military system is the means of enforcing discipline and securing regularities in the performance of academic duties. It gives me pleasure to report that the discipline of the corps of cadets is well maintained; flagrant violations of the regulations of the College are rare, while cases of disobedience or disrespect toward a professor are almost unknown.

During the fall and spring terms practical military instruction is given in infantry and artillery drills, rifle firing, and the duties of guards and sentinels.

All military exercises, excepting the necessary guard, are suspended during the winter term. A course of lectures is delivered to the first class, embracing the elements of some of the technical studies connected with the art and science of war. During this term, also, the second class receives instruction in the section room in infantry tactics and the United States army regulations.

In the fall term three hours a week are allowed the department for practical instruction of each of the two higher classes, and five hours for each of the two lower classes; in the spring term three hours a week for each of the four classes.

This limited time for military instruction admits of but rudimentary work, and necessarily gives unsatisfactory results. Much attention is devoted to the "setting up" drills, to straighten and strengthen the students, and to impart an erect and graceful carriage, as this development of the physique is, in my judgment, of first importance. The cadets are then drilled in the schools of the company and battalion, and acquit themselves creditably, considering the limited time allowed for those drills. Once a week during the spring term the cadets of the second class are instructed in artillery drill in the school of the section and platoon (dismounted), and those of the first class in the use of small arms at rifle practice. At the close of this latter practice the cadets of the first class compete for a gold medal awarded by the Commandant.

The Commandant of Cadets being responsible for the maintenance of discipline, I respectfully recommend that more authority be granted him. For minor infractions of the rules and regulations the necessary punishment should be assigned by him instead of by the Chairman of the Faculty. The officers of the army detailed from time to time as Commandant can be trusted to exercise this authority discreetly.

While I must admit that the working of the department is more satisfactory than at any time since my connection with the College, I respectfully submit that the time allowed for instruction is inadequate, and recommend that five hours per week be assigned for the important work of the military department. With full acknowledgment of the existing feeling among certain classes of citizens that the military feature of the Agricultural and Mechanical College should not be made too prominent, I maintain that it is necessary and right to make this a thoroughly efficient department, as upon it depends, to a large degree, the success of every other department of the institution.

Very respectfully, your obedient servant,
GUY CARLETON, First Lt. Second Cavalry,
Professor of Military Science and Tactics.

REPORT OF THE DEPARTMENT OF LANGUAGES.

Professor L. L. McInnis, Chairman of Faculty A. and M. College:

SIR—In reply to your request regarding the condition of the Department of Foreign Languages, I have the honor of presenting to you the following statement.

The department consists of three di visions:

1. The German.
2. The Spanish.
3. The Latin.

The German division is divided into six separate sections.

The first section contains the pupils of the regular first class, reading now "German Prose," by H. Boisen.

The second class contains those pupils of the same class who have recently changed the agricultural course for the horticulture, studying now "Graded German Lessons," by W. C. Collar.

The third section contains the pupils of the regular second class, studying "Graded German Lessons," by W. C. Collar; syntax.

The fourth section contains the third and fourth classes, studying the same book; rudiments.

The fifth section contains advanced scholars, writing compositions.

The sixth class contains post graduate course, reading "Vienna von Barnhelm."

The Spanish division is divided into three sections:

The first section comprises the pupils of the regular first class, reading "New Spanish Reader," by Velazquez de la Cadena.

The second section contains the pupils of the regular second class, studying "Complete Spanish Manual," by Alberto de Tornos.

The third section contains the pupils of the third and fourth classes, studying the same book; elements.

The Latin division consists of two sections:

The first section contains the pupils of the first and second classes, studying Stuart's Grammar; syntax.

The second class contains the pupils of the third and fourth classes, studying the elements of the same book.

The students of the first regular class, both German and Spanish, receive each three hours during the week, the others no more than two hours. Total number of students receiving instruction during twenty-five hours per week, eighty-one.

Very respectfully, your obedient servant,

RUDOLPH WIPPRECHT,
Professor of Modern Languages.

REPORT OF THE SURGEON.

Prof. L. L. McInnis, Chairman of Faculty:

SIR—In compliance with your request, I have the honor to submit my report as Surgeon for the past three months, together with recommendations as to the needs of the hospital and the enforcement of sanitary regulations at the College. For the first six weeks of the session the hospital was occupied by Professor Brunk's family, and I was compelled to treat the sick in their rooms. There were no cases of serious sickness during that time however, and aside from the extra work devolving upon the Surgeon, very little inconvenience arose from being deprived of the use of the hospital. There has been about the usual amount of sickness since the session opened, none of the cases being of a very serious nature. In the matter of hospital attendance, I regret to say that much improvement could be made. It is a matter of great importance that a suitable person be employed as nurse. The comfort of the sick, to say nothing of their chances of recovery, depends more upon good nursing than upon medical treatment, and a physician who is compelled to treat cases without the assistance of a good nurse, labors under serious disadvantages. Every facility should be provided for the comfort of cadets when sick, and questions of economy should not stand in the way. With reference to the furniture of the hospital I would respectfully suggest that a better quality of bedsteads be provided, as those now in use are very much out of repair. The table ware now in use at the hospital is much worn and presents a very uninviting aspect to a sick person. A closet or safe, in which to keep the table ware, protected from dust and fly specks, is much needed, and a dish pan and additional towels are needed, in order that the table ware may be kept clean. With reference to the sanitary condition of the College, I would recommend a thorough system of drainage. Slops from the mess hall and barracks should not be emptied near the buildings, and in this connection I would say that the condition of things in rear of the mess hall are not what they should be.

The bath house should be kept in condition for use, and arrangements for supplying hot water for bathing purposes should be made, so that cadets could bathe during cold weather. Filters should be provided for the cisterns and frequently changed, in order that the drinking water might be kept pure; as it is a well established fact that diseases are often produced by drinking water containing organic matter. Great care should be taken to secure wholesome and well cooked food for cadets, and there should be some limit to the amount furnished, as overeating is a fruitful source of disease. A suitable refrigerator should be provided for preserving meats during warm weather, as I am satisfied that the present method of keeping meat in contact with melting ice renders it unwholesome. Being fully satisfied that much of the sickness at the College could be prevented by a strict enforcement of sanitary regulations, I earnestly recommend the adoption of the above suggestions.

Respectfully,
J. D. READ, M. D.,
Surgeon A. and M. College.

December 1, 1888.

TABULAR STATEMENTS.

EXHIBIT A.

Inventory of College Property.

Donated to the State by Brazos County:		
Two thousand four hundred and sixteen acres of land	$16,912 00	
One steward's residence	1,000 00	
		$17,912 00
Improvements made prior to 1876, when College was opened:		
One main college building, 151½x60 feet, brick, four stories	$100,000 00	
One steward's hall and dormitory, 91x39 feet, three stories, brick One residence attached to steward's hall, 40x30 feet, four stories	35,000 00	
One stable and barn, 18x30 feet, frame	1,500 00	
Nine cisterns, brick, underground	1,800 00	
Five professors' residences	15,000 00	
Plank fence and cedar posts, enclosing college campus, 161 acres	500 00	
		153,800 00
Improvements made from October, 1876, to January 1, 1887:		
Two story frame building, 84x34 feet, wood working shop	$4,000 00	
Two story frame building, farm house	1,000 00	
One story frame building, for employes	500 00	
Seven underground cisterns, brick	1,400 00	
Bath house, sixteen rooms	300 00	
Oil house	100 00	
Fence, plank and wire, small pasture, forty-six acres	100 00	
Telephone lines, college to Bryan, five miles	250 00	
Brick shop, 80x40 feet, iron working	5,000 00	
Store room mess hall, with cellar	3,500 00	
Bakery	500 00	
Cattle shed	500 00	
Large barn	2,500 00	
Fences, pasture, east of college, 461 acres	1,500 00	
Fences, pasture, east of Houston and Texas Central railway, 850 acres	2,000 00	
Two tanks in pastures	500 00	
Piggery	500 00	
		23,150 00
Improvements made since January 1, 1887:		
Pfuffer hall, 112x46 feet, two stories, brick	$11,500 00	
Hospital, one story, frame	2,000 00	
Farm house, one story, frame	1,300 00	
Creamery building and cistern	1,300 00	
Propagating and green house, brick	600 00	
Blacksmith shop, brick	600 00	
Seven underground cisterns	1,500 00	
Two frame servants houses	400 00	
Three silos	1,500 00	
Austin hall, two story, 102x46, brick	11,000 00	
Two professors' cottages, frame	3,200 00	
Fences, two pastures, west of Houston ana Texas Central railwoy, 800 acres	1,500 00	
Fences, stock lots	500 00	
Addition to barn and stables	1,250 00	
Addition to cattle shed	250 00	
Large cattle shed	500 00	
Two employes' cottages	400 00	
		39,300 00
Total permanent improvements		$234,162 00

Exhibit A—continued.

Inventory of College Property.

EQUIPMENT.		
Mathematical department		$315 00
Language department		104 50
English		87 00
Library books, etc		4,704 97
Improvement of campus—pair of mules, wagon and tools		603 00
Drawing department		301 10
Agricultural Department:		
Seven work animals	$665 00	
Five Holestein-Freisian cattle	995 00	
Four Galloway cattle	675 00	
One Creole cow	50 00	
One Jersey bull	60 00	
Twenty-two grade Galloway-Holstein cattle	515 00	
One hundred and thirty-six stock cattle	2,906 00	
Six thoroughbred hogs	60 00	
Twenty-seven corn bred and grade hogs	182 00	
Total	$6,108 00	
From produce	1,374 00	
From implements, boiler, engine and tools	9,081 70	
One half interest in creamery	563 10	
		17,126 80
Mechanical Department:		
Tools and machinery	$6,729 85	
Section room furniture	85 00	
		6,814 85
Chemistry and Minerology Department:		
Chemical apparatus		4,168 65
Civil Engineering and Physics Department:		
Civil engeering apparatus	$2,277 76	
Physical apparatus	943 70	
		3,221 46
Agricultural Experiment Station:		
Machinery at barn	$1,285 00	
Live stock	2,855 00	
Forage	1,163 00	
Fertilizer	125 00	
Implements	210 30	
Drainage	423 00	
Creamery, one-half interest	563 10	
Meteorological apparatus	125 85	
Office furniture	251 00	
		7,001 25
Mess hall furniture		3,987 88
Hospital furniture		114 25
Office and chapel furniture		1,165 50
Furniture, officers and students		3,484 14
Museum		177 90
Veternary department		1,018 92
Horticultural department		656 60
Book store, text books		1,000 00
Total equipment		$67,045 00

Total permanent improvements	$234,162 00
Total equipment	67,045 00
Grand total	$301,207 00

Detailed inventories of all property of the college in the several departments are on file in this office, as required by resolution of the Board of Directors.

EXHIBIT B.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Jan. 15	579	Bookstore	Express	S. Hoffman	$2 35
.. 15	580	Maintenance	Chimneys	Ripley Kimball	11 00
.. 15	581	Bookstore	Express	S. Hoffman	2 30
.. 15	582	Agricultural Department	Tools	W. Koppe	27 09
.. 17	583	Improvement of campus	Trees	Wm. Watson	50 00
.. 17	584	Library	Books	W. H. Wiley	9 00
.. 17	585	Library	Books	W. D. McDonald & Co	6 00
.. 17	586	Library	Paper	Journal of Commerce Company	1 50
.. 19	587	W. R. Manning	Refunded	W. R. Manning	30 00
.. 25	588	P. C. Vines	Refunded	P. C. Vines	5 00
.. 26	589	J. W. Harvey	Refunded	J. W. Harvey	21 50
.. 27	590	Expense	Box rent	Bryan postoffice	1 00
.. 27	591	Agricultural Department	Lumber	Garth, Griffiths & Co	4 45
.. 27	592	Mechanical Department	Supplies	G. W. Norrell	1 25
.. 27	593	Mechanical Department	Material	Garth, Griffiths & Co	6 75
.. 27	594	Maintenance	Groceries	J. W. English	37 00
.. 27	595	Hennery	Lumber	Fulkerson & Lawrence	13 75
.. 27	596	Expense	Traveling expenses	L. L. McInnis	13 77
.. 27	597	Maintenance	Laundry	Houston Steam Laundry	127 95
.. 27	598	Library	Paper	David Williams	4 50
.. 27	599	Bookstore	Books	Cowperthwaite & Co.	6 00
.. 27	600	Library	Paper	Perry, Mason & Co	1 25
.. 27	601	Chemical Department	Supplies	Eisner & Armend	2 48
.. 27	602	Bookstore	Books	W. Y. Scarff & Co	7 20
.. 27	603	Agricultural Department	Freight	A. B. Farquhar	15 44
.. 27	604	Library	Paper	Popular Science News	1 00
.. 27	605	Bookstore	Books	Williams & Brown	55 20
.. 27	606	Bookstore	Books	Ivison, Blakeman & Taylor	7 50
.. 27	607	Maintenance	Supplies	W. Koppe	17 70
.. 27	608	Hennery	Hardware	W. Koppe	2 45
.. 27	609	Mechanical Department	Supplies	W. Koppe	6 40
.. 27	610	Maintenance	Gasoline	Waters Pierce Oil Co	198 32
.. 27	611	Hennery	Express	Sam Hoffman	9 72
.. 27	612	Agricultural Department	Express	Pacific Express Company	70
.. 27	613	Mechanical Department	Express	Pacific Express Company	1 75
.. 27	614	Mechanical Department	Brickwork	Peter Winter	8 00
.. 27	615	Repairs	Brickwork	Peter Winter	3 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Jan. 27	616	Hennery	Incubator	James Rankin	$108 00
.. 28	617	Maintenance	Groceries	J. W. English	6 80
.. 31	618	E. S. Rochelle	Refunded	E. S. Rochelle	5 00
Feb. 2	619	W. B. Stedman	Refunded	W. B. Stedman	5 00
.. 2	620	Salaries	Assistant in mechanics	F. E. Girsecke	50 00
.. 2	621	Salaries	Assistant in agriculture	D. Adriance	50 00
.. 2	622	Salaries	Assistant in English	W. B. Philpott	60 00
.. 2	623	Medical attendance	Surgeon	J. D. Read	85 00
.. 2	624	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 2	625	Salaries	Assistant mathematician	Guy Carleton	30 00
.. 2	626	Salaries	Assistant chemist	W. Wippucht	66 66
.. 2	627	Salaries	Foreman shop	A. Harbers	60 00
.. 2	628	Maintenance	Janitor	O. Boehme	20 00
.. 2	629	Maintenance	Janitor	C. Seibeat	20 00
.. 2	930	Agricultural Department	Foreman farm	F. Zimmerman	40 00
.. 2	631	Agricultural Department	Student labor	Wess & Stricklin	13 00
.. 2	632	Agricultural Department	Farm pay roll	G. W. Curtis	48 00
.. 2	633	Agricultural Department	Seed	W. H. Webb	3 30
.. 3	634	Mechanical Department	Express	Sam Hoffman	35
.. 2	635	Expense	Express	Sam Hoffman	40
.. 2	636	Chemical Department	Hardware	W. Koppe	2 30
.. 7	637	Maintenance	Laundry	Houston Steam Laundry	93 75
.. 7	639	Maintenance	Hardware	W. Koppe	72
.. 7	638	Improvement of campus	Repairs	T. P. Wooten & Son	50
.. 7	640	Bookstore	Books	J. B. Lippincott & Co.	3 20
.. 7	641	Library	Paper	North American Review	5 00
.. 7	642	Maintenance	Groceries	J. W. English	5 10
.. 7	643	Improvement of campus	Supplies	J. W. English	40
.. 7	644	Advertising and printing	Printing	Brazos Pilot	7 00
.. 7	645	Bookstore	Text books	H. Waddell	3 50
.. 7	646	Bookstore	Text books	D. C. Heath & Co.	10 80
.. 7	647	Repairs	Glass	Jas. Bute	6 60
.. 7	648	Maintenance	Drumster	J. R. Fisk	20 00
.. 7	649	Maintenance	Beef	H. B. Stoddard	91 47
.. 7	650	Maintenance	Groceries	J. W. English	6 60
.. 7	651	Maintenance	Steward	B. Sbisa	166 66
.. 7	652	Maintenance	Supplies	B. Sbisa	396 67

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Feb. 9	653	Bookstore	Books	D. Appleton & Co.	$13 08
.. 9	654	Maintenance	Groceries	Carson, Sewall & Co.	135 21
.. 9	655	Maintenance	Groceries	J. W. English.	25 90
.. 9	656	Mechanical Department.	Hardware	Simmons Hardware Company	5 30
.. 9	657	Salaries	Agents' board	T. M. Scott	62 50
.. 9	658	Agricultural Department	Seeds	W. H. Webb	4 60
.. 9	659	Bookstore	Books	J. J. Postoriza	1 50
.. 9	660	Agricultural Department	Lumber	Garth, Griffiths & Co	2 97
.. 10	661	Maintenance	Flour	Empire Mills	99 65
.. 10	662	Maintenance	Groceries	J. W. English	5 58
.. 11	663	Improvement of campus	Labor	Tom Cavitt	15 00
.. 11	664	Expense	Stationery.	L. L. McInnis	6 05
.. 11	666	Agricultural Department	Harness	Hanway & Son	7 50
.. 11	667	Maintenance	Glassware	C. E. Clarke Notion Company	7 85
.. 11	665	Bookstore	Express	Pacific Express Company	85
.. 11	668	Agricultural Department	Labor	Adam Haley	4 00
.. 14	669	Bookstore	Text books	Jno. Wiley & Sons	6 52
.. 19	670	Maintenance	Oil	Waters Pierce Oil Company	15 82
.. 19	671	Bookstore	Drawing supplies	J. W. Queen & Co.	17 44
.. 19	672	Hennery.	Supplies	J. W. English.	1 75
.. 19	673	Maintenance	Groceries	J. W. English	9 19
.. 19	674	Expense	File boxes.	Globe File Company.	22 42
.. 19	675	Agricultural Department	Labor	C. A. Carson	18 12
.. 22	676	Agricultural Department	Vines	S. Kujawski	12 70
.. 22	677	Agricultural Department	Supplies	G. W. Norrell.	40 35
.. 22	678	Gas	Gas machine	Matthews & Hall	375 00
.. 22	679	Maintenance	Labor	Jesse Parker	40 00
.. 22	680	Agricultural Department	Labor	Carson Bros	3 75
.. 28	681	R. E. George	Refunded	R. E. George	5 00
.. 28	682	Maintenance	Oil	Waters Pierce Oil Company	14 00
.. 28	683	Maintenance	Groceries	Carson, Sewall & Co.	12 60
.. 28	684	Expense	Telegrams	L. L. McInnis	1 70
.. 28	685	Hennery.	Supplies	W. H. Webb	1 60
.. 28	686	Maintenance	Groceries	J. W. English	27 75
.. 28	687	Bookstore	Text books	MacMillan & Co.	3 58
.. 28	688	Hennery.	Supplies	B. Ibisa	34 10
.. 28	689	Expense	Traveling expenses.	L. L. McInnis	9 25

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Feb. 28	690	S. E. Flake	Refunded	S. E. Flake	$4 00
.. 28	691	Repairs	Brick	Robb & Johnson	48 00
.. 28	692	Mechanical Department	Expense	Pacific Express Company	45
.. 28	693	Bookstore	Text books	Van Antwerp, Bragg & Co.	58 25
March 1	694	Maintenance	Laundry	Houston Steam Laundry	139 02
.. 1	695	Repairs	Freight	S. Hoffman	12 00
.. 1	696	Agricultural Department	Freight	S. Hoffman	6 09
.. 1	697	Expense	Freight	S. Hoffman	1 03
.. 1	698	Repairs	Lumber	Garth, Griffiths & Co.	17 80
.. 1	699	Medical attendance	Surgeon	J. D. Reed	85 00
.. 1	700	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 1	701	Salaries	Assistant agriculturalist	D. Adriance	50 00
.. 1	702	Salaries	Foreman shop	A. Harbers	60 00
.. 1	703	Salaries	Assistant in mechanics	F. E. Geiscke	50 00
.. 1	704	Salaries	Assistant in English	W. B. Philpott	60 00
.. 1	705	Salaries	Assistant in chemistry	W. Wipprecht	66 66
.. 3	706	Agricultural Department	Labor	C. A. Carson	4 25
.. 3	708	Agricultural Department	Lumber	Garth, Griffiths & Co.	41 04
.. 3	707	Agricultural Department	Repairs	T. B. Wooten & Son	2 40
.. 3	709	Maintenance	Hardware	W. Koppe	2 80
.. 3	710	Expense	Postage	S. Hoffman	44 70
.. 4	711	J. F. Green	Refunded	J. F. Green	4 25
.. 4	712	L. B. Camp	Refunded	L. B. Camp	4 50
.. 4	713	W. D. Burks	Refunded	W. D. Burks	5 00
.. 4	714	Agricultural Department	Tools	W. Koppe	15 37
.. 4	715	Agricultural Department	Seeds	W. H. Webb	12 07
.. 4	716	Maintenance	Groceries	J. W. English	3 90
.. 4	717	Mechanical Department	Supplies	J. W. Queen & Co.	2 14
.. 4	718	Printing	Advertising	Galveston News	5 00
.. 4	719	Mechanical Department	Hardware	W. Koppe	10 18
.. 4	720	Mechanical Department	Shaper	Pond Machine and Toole Co.	330 97
.. 7	721	Agricultural Department	Foreman farm	F. Zimmerman	40 00
.. 7	722	Agricultural Department	Farm pay roll	G. W. Curtis	80 40
.. 7	723	Agricultural Department	Student labor	Wess & Stricklin	15 60
.. 7	724	C. E. Martin	Refunded	C. E. Martin	4 50
.. 7	725	Expense	Traveling expenses	A. J. Rose	11 35
.. 7	726	W. M. Manly	Refunded	W. M. Manly	4 90

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. March 7	727	J. S. Miles	Refunded	J. S. Miles	$4 75
7	728	Maintenance	Steward	B. Sbisa	166 66
7	729	Maintenance	Supplies	B. Sbisa	342 36
7	730	Maintenance	Drummer	J. R. Fisk	20 00
7	731	Salaries	Agricultural Board	T. M Scott	62 50
7	732	Maintenance	Beef	H. B. Stoddard	48 79
7	733	Mechanical Department	Lumber	Garth, Griffiths & Co	4 58
7	734	Maintenance	Groceries	J. W. English	127 01
7	735	Maintenance	Oil	Waters Pierce Oil Co	3 00
17	736	Improvement of campus	Labor	Joseph Liposo	10 00
19	737	Hennery	Supplies	B. Sbisa	44 15
19	738	Maintenance	Flour	Empire Mills	57 00
19	739	Maintenance	Groceries	J. W. English	37 06
19	740	Mechanical Department	Lumber	Garth & Wash	1 86
19	741	Repairs	Hardware	J. S. Brown Hardware Co	85
19	742	Library	Books	A. C. McClevy & Co	4 20
19	743	Maintenance	Freight	Texas Mill and Elevator Co	2 75
19	744	Maintenance	Laundry	Houston Steam Laundry	132 78
19	745	Agricultural Department	Lumber	Garth, Griffiths & Co	8 16
19	746	Agricultural Department	Labor	F. Zimmerman	7 25
19	747	Expense	Traveling expenses	C. C. Ganett	19 75
19	748	Expense	Traveling expenses	L. L. McInnis	14 30
19	749	Expense	Traveling expenses	T. M. Scott	13 53
19	750	Expense	File boxes	Globe File Co	20 92
19	751	Improvement of campus	Labor	Tom Cavitt	15 00
19	752	Improvement of campus	Trees	J. G. Session	20 00
22	753	Maintenance	Labor	Jesse Parker	20 00
22	754	Maintenance	Groceries	J. W. English	20 82
25	755	Mechanical Department	Freight	Sam Hoffman	12 34
28	756	Agricultural Department	Building fence	J. H. Saber, Jr	96 45
31	757	Printing	Advertising	Texas Farmer	5 00
31	758	Expense	Hardware	J. S. Brown Hardware Co	3 40
31	759	Maintenance	Oil	Waters Pierce Oil Co	2 60
31	760	Maintenance	Groceries	J. W. English	47 79
31	761	Maintenance	Lamp chimneys	Ripley & Bronson	12 25
31	762	Mechanical Department	Lumber	A. Behring & Bro	22 26
31	763	Mechanical Department	Supplies	G. W. Norrell	17 20

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. March 31	764	Maintenance	Flour	Texas Mill and Elevator Co	$54 50
.. 31	765	Agricultural Department	Labor	J. H. Alsworth	1 00
.. 31	766	Agricultural Department	Supplies	Hamvoy & Son	1 20
.. 31	767	Agricultural Department	Supplies	Buford & Hall.	1 80
.. 31	768	Bookstore	Text books	D. C. Heath & Co	21 85
.. 31	769	Salaries	Assistant Mathematician	R. F. Smith	75 00
.. 31	770	Maintenance	Janitor	C. Siebert	20 00
.. 31	771	Maintenance	Janitor	O. Boehme	20 00
April 1	772	Bookstore	Express	S. Hoffman	55
.. 1	773	Maintenance	Express	S. Hoffman	1 20
.. 1	774	Chemical Department	Express	S. Hoffman.	2 00
.. 1	775	Salaries	Foreman shop	A. Harbers	60 00
.. 1	776	Salaries	Assistant in English	W. B. Philpott	60 00
1	777	Salaries	Assistant in mechanics	F. E. Geisecke	50 00
.. 1	778	Salaries	Assistant in mathematics	Guy Carleton	25 00
.. 1	779	Salaries	Assistant in agriculture	D. Adriance	50 00
.. 1	780	Salaries.	Assistant in chemistry	W. W. Wippricht	66 66
.. 1	781	Bookstore	Text books	D. Appleton & Co	16 00
.. 1	782	Maintenance	Groceries	J. W. English	96 87
.. 1	783	Medical attendance	Surgeon	J. D. Read	85 00
.. 1	784	Agricultural Department	Supplies	W. J. Moore	1 50
.. 2	785	Bookstore	Express	Pacific Express Company	2 70
.. 2	786	Expense	Express	Pacific Express Company	70
.. 4	787	Repairs	Brickmason	Peter Winter	30 00
.. 4	788	C. L. Wurzbach.	Refunded	C. L. Wurzbach	4 75
.. 4	789	C. A. Long	Refunded	C. A. Long	5 00
.. 4	790	Agricultural Department	Foreman farm	J. H. Alsworth	40 00
.. 4	791	Expense	Traveling expenses	W. R. Cavitt	92 05
.. 5	792	Agricultural Department	Farm pay roll	G. W. Curtis	66 60
.. 5	793	Agricultural Department	Student labor	Wess & Stricklin	18 10
.. 5	794	Agricultural Department	Seed	Halloway & Co	14 74
.. 5	795	Cancelled			
.. 5	796	Agricultural Department	Gardener	F. Zimmerman	40 00
.. 5	797	Agricultural Department	Repairs to farm implements	T. P. Wooten & Son	5 70
.. 5	798	Agricultural Department	Express	Pacific Express Company	65
.. 5	799	Maintenance	Groceries	Chance Bros.	12 60
.. 5	800	Expense	Supplies	G. W. Norrell	3 05

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
April 5	801	Expense	Box rent	Bryan postoffice	$1 00
... 5	802	Maintenance	Laundry	Houston Steam Laundry	125 22
... 5	803	Library	Books	W. D. McDonald & Co	6 00
... 5	804	Military Department	Express	Pacific Express Co	9 40
... 5	805	Maintenance	Drummer	J. R. Fish	20 00
... 7	806	Maintenance	Janitor	C. Siebert	20 00
... 7	807	Maintenance	Janitor	O. Boehme	30 00
... 7	808	Maintenance	Supplies	B. Sbisa	367 71
... 7	809	Maintenance	Steward	B. Sbisa	166 66
... 7	810	Maintenance	Beef	H. B. Stoddard	104 86
... 8	811	Maintenance	Groceries	J. W. English	14 33
... 8	812	Salaries	Agricultural Board	T. M. Scott	62 50
... 9	813	Bookstore	Text books	Universal Publishing Co	2 70
... 9	814	Chemical Department	Apparatus	J. W. Queen & Co	4 10
... 9	815	Maintenance	Hardware	W. Koppe	6 25
... 9	816	Hennery	Hardware	W. Koppe	5 55
... 9	817	Hennery	Supplies	B. Sbisa	30 14
... 9	818	Improvement of campus	Labor	T. Cavitt	10 00
... 9	819	Cancelled	......	...	
... 12	820	J. T. McDaniel	Refunded	J. T. McDaniel	10 00
... 12	821	Agricultural Department	Seed	T. J. McQueen & Co	56 50
... 12	822	Agricultural Department	Labor	Peter Saevicky	14 00
... 12	823	Agricultural Department	Wire, etc	W. Koppe	66 30
... 12	824	Maintenance	Gasoline	Waters Pierce Oil Co	94 99
... 12	825	Mechanical Department	Hardware	W. Koppe	2 75
... 12	826	Mechanical Department	Express	Pacific Express Co	40
... 12	827	W. W. Carson	Refunded	H. H. Dinwiddie	3 65
... 12	828	Agricultural Department	Oats and bran	Texas Mill and Elevator Co	224 45
... 12	829	Repairs	Paints	W. H. Webb	86 00
... 12	830	Mechanical Department	Lumber	A. Behring & Bro	1 00
... 12	831	Bookstore	Text books	McMillan & Co	4 64
... 12	882	Repairs	Leather	Hamvay & Son	1 00
... 18	833	Maintenance	Groceries	J. W. English	19 20
... 18	834	Maintenance	Flour	Texas Mill and Elevator Co	54 50
... 18	835	Mechanical Department	Lumber	Garth & Nash	7 38
... 18	836	Printing	Blanks	J. J. Pastoriza	7 50
... 18	837	Bookstore	Text books	Ivison, Blakeman & Co	6 61

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
April 21	838	Library	Assistant librarian	L. E. Allen	$25 00
.. 22	839	Agricultural Department	Labor	Jos. Wossnik	1 00
.. 23	840	Mechanical Department	Freight	Missouri Pacific Railway	2 77
.. 23	841	Agricultural Department	Labor	Jas. Dobrovolney	1 30
.. 26	842	Expense	Stationery	H. H. Dinwiddie	4 20
.. 26	843	Maintenance	Groceries	Chance Bros	6 30
.. 26	844	Maintenance	Groceries	J. W. English	29 70
.. 26	845	Maintenance	Laundry	Houston Steam Laundry	124 53
.. 26	846	Expense	Traveling expenses	A. J. Rose	13 40
May 2	847	Agricultural Department	Foreman farm	J. H. Alsworth	40 00
.. 2	848	Maintenance	Meal	L. A. Scott	14 45
.. 2	849	Maintenance	Groceries	J. W. English	11 25
.. 2	850	Maintenance	Groceries	R. J. Ford	9 45
.. 2	851	Mechanical Department	Supplies	G. W. Norrell	14 70
.. 2	852	Agricultural Department	Hardware	W. Koppe	19 95
.. 2	853	Agricultural Department	Repairing farm implements	Wooten & Son	11 30
.. 2	854	Expense	Lumber	A. Behring & Bro	3 31
.. 2	855	Military Department	Supplies	Chief Ordnance U. S. A.	7 50
.. 2	856	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 2	857	Military Department	Supplies	C. H. Clark U. S. Ordnance	65 22
.. 2	858	Agricultural Department	Labor	Adam Haley	4 10
.. 2	859	Agricultural Department	Labor	Calvin Morris	6 35
.. 2	860	Salaries	Foreman shop	A. Harbers	60 00
.. 2	861	Salaries	Assistant in mechanics	F. E. Girsecke	50 00
.. 2	862	Salaries	Assistant chemist	W. Wippricht	66 66
.. 2	863	Salaries	Assistant in English	W. B. Philpott	60 00
.. 2	864	Salaries	Assistant mathematician	Guy Carleton	30 00
. 2	865	Salaries	Assistant in agriculture	D. Adriance	50 00
.. 3	866	Agricultural Department	Labor	A. Gozyzki	5 25
.. 4	867	Expense	Stationery	A. D. McConnico	1 80
.. 4	868	Medical attendance	Surgeon	J. D. Reed	85 00
.. 4	869	Maintenance	Drummer	J. R. Fisk	20 00
.. 4	870	Agricultural Department	Farm pay roll	G. W. Curtis	90 00
.. 4	871	Maintenance	Beef	H. B. Stoddard	117 94
.. 7	872	Agricultural Department	Leather	Hanway & Son	1 00
.. 7	873	Agricultural Department	Repairs	Wooten & Son	3 15
.. 7	874	Agricultural Department	Supplies	G. W. Norrell	50

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
May 7	875	Maintenance	Groceries	J. W. English	$170 25
7	876	Pfeuffer Hall	Traveling expenses	R. H. Whitlock	20 82
.. 9	877	Maintenance	Steward	B. Sbisa	166 66
.. 9	878	Maintenance	Supplies	B. Sbisa	388 29
.. 9	879	Maintenance	Flour	Texas Mill and Elevator Co.	59 95
.. 10	880	Mechanical Department	Lumber	Garth & Nash	3 36
.. 13	881	Expense	Exchange and interest	First National Bank	33 93
.. 13	881½	Hennery	Labor	B. Sbisa	20 00
.. 13	882	Salaries	Agricultural Board	T. M. Scott	62 50
.. 13	883	Farm house	Traveling expenses	T. M. Scott	9 65
.. 13	884	Agricultural Department	Tools	L. T. Fuller	5 40
.. 13	885	Agricultural Department	Express	Pacific Express Company	25
.. 13	886	Hospital	Traveling expenses	L. L. McInnis	10 95
.. 13	887	Maintenance	Groceries	Chance Bros	3 50
.. 13	888	Maintenance	Groceries	J. W. English	34 76
.. 13	889	Bookstore	Text books	Williams & Brown	5 28
.. 13	890	Bookstore	Express	Wells, Fargo & Co	1 20
. 13	891	Printing	Stationery	Reynolds & Reynolds	15 40
.. 16	892	Maintenance	Janitor	Carl Seibert	20 00
.. 16	893	Maintenance	Janitor	Otto Boehme	20 00
.. 16	894	Printing	Express	H. J. McNair, agent	2 40
.. 16	895	Agricultural Department	Gardener	F. Zimmerman	40 00
.. 16	896	Agricultural Department	Student labor	Wess & Stricklin	18 20
.. 16	897	Agricultural Department	Plow	L. T. Fuller	5 00
.. 16	898	Agricultural Department	Repairs	Wooten & Son	1 00
.. 16	899	Agricultural Department	Supplies	J. W. English	5 60
.. 16	900	Agricultural Department	Supplies	G. W. Norrell	75
.. 16	901	Maintenance	Ice	Bryan Ice Co.	12 38
.. 16	902	Maintenance	Groceries	J. W. English	27 86
.. 17	903	Expense	Express	B. Sbisa	2 40
.. 17	904	Maintenance	Express	B. Sbisa	3 60
.. 17	905	W. N. Fleming	Refunded	W. N. Fleming	4 75
.. 17	906	Maintenance	Laundry	Houston Steam Laundry	122 30
.. 17	907	Agricultural Department	Freight	Deere, Mansur & Co.	73
.. 18	908	Mechanical Department	Supplies	G. W. Norrell	2 63
.. 18	909	Maintenance	Meal	L. A. Scott	11 90
.. 18	910	Agricultural Department	Supplies	G. W. Norrell	1 30

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
May 18	911	Pfeuffer hall	Brick	Jno. Robb	$75 00
18	912	Bookstore	Blanks	Brazos Pilot	3 50
18	913	Repairs	Supplies	G. W. Norrell	5 40
18	914	Mechanical Department	Supplies	W. Koppe	20 15
18	915	Mechanical Department	Supplies	G. W. Norrell	1 25
18	916	Improvement of campus	Labor	Jos. Lepaso	26 25
18	917	C. F. Adriance	Refunded	C. F. Adriance	4 70
20	918	Pfeuffer hall	Brick	Jno. Robb	50 00
21	919	Maintenance	Groceries	J. W. English	9 73
21	920	Agricultural Department	Lumber	Garth & Nash	54 40
21	921	Expense	Exchange	First National Bank	25
23	922	Salaries	Assistant in English	W. B. Philpott	60 00
23	923	Medical attendance	Surgeon	J. D. Read	85 00
23	924	Salaries	Assistant mathematician	R. F. Smith	75 00
23	925	Salaries	Assistant in chemistry	W. Wipprecht	66 66
23	926	Salaries	Assistant agriculturalist	D. Adriance	50 00
23	927	Salaries	Assistant in mechanics	F. E. Geiscke	50 00
23	928	Salaries	Assistant mathematician	Guy Carleton	30 00
23	929	Salaries	Foreman shop	A. Harbers	60 00
23	930	Library	Assistant librarian	L. E. Allen	25 00
26	931	Bookstore	Text books	A. L. Shipman & Sons	6 00
26	932	Maintenance	Labor	Jesse Parks	40 00
26	933	Expense	Stationery	H. H. Dinwiddie	1 10
26	934	Agricultural Department	Supplies	G. W. Norrell	2 60
26	935	Agricultural Department	Supplies	L. T. Fuller	5 20
26	936	Maintenance	Groceries	J. W. English	5 28
26	937	Maintenance	Oil	Waters Pierce Oil Company	4 00
26	938	Pfeuffer hall	Brick	Jno. Robb	105 00
26	939	Pfeuffer hall	Brick	Jno. Robb	55 00
27	940	Repairs	Painting	W. A. Dodson	6 00
27	941	W. Powors	Refunded	W. Powors	4 75
28	942	Repairs	Paints	G. W. Norrell	2 85
28	943	Maintenance	Flour	Texas Mill and Elevator Co.	40 70
28	944	Printing	Blanks	Texas Blade	4 00
28	945	Salaries	Agents' board	T. M. Scott	62 50
28	946	Agricultural Department	Supplies	L. T. Fuller	3 74
28	947	Maintenance	Groceries	Carson, Sewall & Co.	197 38

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. May 30	948	Agricultural Department	Express	Pacific Express Company	$0 80
.. 30	949	Military Department	Express	Pacific Express Company	1 00
.. 30	950	Agricultural Department	Foreman farm	J. H. Alsworth	40 00
.. 30	951	Agricultural Department	Gardener	F. Zimmerman	41 50
.. 30	952	Agricultural Department	Farm pay roll	G. W. Curtis	88 00
.. 30	953	Maintenance	Beef	H. B. Stoddard	151 97
.. 30	954	Maintenance	Janitor	O. Boehme	20 00
.. 30	955	Maintenance	Janitor	C. Siebert	24 00
.. 30	956	Maintenance	Steward	B. Sbisa	166 66
.. 30	957	Deposit for damages	Refunded to students	L. L. McInnis	463 80
.. 30	958	Maintenance	Supplies	B. Sbisa	395 71
.. 80	959	Maintenance	Drummer	J. R. Fisk	20 00
.. 30	960	Hennery	Labor	B. Sbisa	20 00
.. 30	961	Maintenance	Laundry	Houston Steam Laundry	123 15

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. June 13	1	Maintenance	Beef	H. B. Stoddard	$51 60
13	2	Expense	Postage	W. C. Boyett	4 60
14	3	Maintenance	Gasoline	Waters Pierce Oil Co.	164 20
14	4	Maintenance	Table linen	Sanger Bros	36 30
14	5	Agricultural Department	Freight	Rawson Manufacturing Co.	1 00
14	6	Pfeuffer hall	Advertising	Galveston News	29 75
15	7	Horticultural Department	Lawn mower	G. M. Dilley & Son	19 00
15	8	Maintenance	Hardware	J. S. Brown Hardware Co.	1 22
15	9	Pfeuffer hall	Architect	E. T. Heiner	267 50
15	10	Maintenance	Groceries	J. W. English	11 99
15	11	Maintenance	Ice	Bryan Ice Co.	45 22
15	12	Horticultural Department	Vines	E. Kellner	3 00
15	13	Agricultural Department	Painting	W. A. Dodson	1 50
15	14	Mechanical Department	Supplies	G. W. Norrell	3 24
15	15	Cancelled			
15	16	Pfeuffer hall	Brick	Jno. Robb	200 00
15	17	Pfeuffer hall	Brick	Jno. Robb	415 00
15	18	Hospital	Brick	Jno. Robb	9 00
15	19	Printing	Advertisement	Brazos Pilot	21 25
15	20	Agricultural Department	Supplies	G W. Norrell	25
15	21	Agricultural Department	Hardware	W. Koppe	1 65
15	22	Pfeuffer hall	Hardware	W. Koppe	5 53
18	23	Pfeuffer hall	Sand	A. Smart	18 75
18	24	Pfeuffer hall	Sand	J. S. Pinkerton	13 33
18	25	Pfeuffer hall	Sand	J. R. Boykin	11 00
18	26	Pfeuffer hall	Sand	J. R. Vannay	13 00
22	27	Maintenance	Supplies	B. Sbisa	90 10
22	28	Pfeuffer hall	Sand	A. Smart	11 00
22	29	Pfeuffer hall	Sand	J. R. Vannay	10 87
22	30	Pfeuffer hall	Sand	J. R. Boykin	6 00
22	31	Pfeuffer hall	Sand	J. S. Pinkerton	4 88
22	32	Agricultural Department	Telegrams	Western Union Telegraph Co.	2 10
25	33	Pfeuffer hall	Sand	L. F. Battle	7 00
27	34	Pfeuffer hall	Contractors	Garth & Wash.	2,500 00
25	35	Pfeuffer hall	Sand	O. W. Prescott	6 75
July 1	36	Agricultural Department	Labor	L. E. Calby	18 00
1	37	Agricultural Department	Labor	Harry Gregory	15 30

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. July 4	38	Pfeuffer hall	Labor	Jos. Geromonski	$13 75
4	39	Agricultural Department	Express	Pacific Express Company	30
5	40	Salaries	Agricultural Board	T. M. Scott	62 50
5	41	Salaries	Foreman shop	A. Harbers	60 00
5	42	Salaries	Foreman farm	J. H. Alsworth	66 66
5	43	Agricultural Department	Labor	J. Cruse	18 00
5	44	Agricultural Department	Student labor	H. Hess	13 40
5	45	Agricultural Department	Labor	T. Cavitt	11 50
14	46	Farm house	Contractors	Garth & Nash	400 00
14	47	Hospital	Contractors	Garth & Nash	900 00
14	48	Pfeuffer hall	Contractors	Garth & Nash	1,600 00
14	49	Pfeuffer hall	Labor	B. Sbisa	130 55
14	50	Pfeuffer hall	Sand	L. F. Battle	8 25
15	51	Salaries	Gardener	F. Zimmerman	50 00
15	52	Expense	Postage	W. C. Boyett	8 45
15	53	Pfeuffer hall	Freight	W. C. Boyett	25
15	54	Maintenance	Beef	W. C. Boyett	70 25
15	55	Printing	Advertising	C. C. Garrett	1 20
15	56	Pfeuffer hall	Traveling expenses	C. C. Garrett	2 15
15	57	Hennery	Labor	A. de Los Rios	20 00
15	58	Maintenance	Steward	B. Sbisa	33 33
15	59	Maintenance	Supplies	B. Sbisa	101 78
15	60	Maintenance	Ice	Bryan Ice Co.	16 41
15	61	Maintenance	Supplies	Hanway & Son	3 00
15	62	Printing	Catalogues	Brazos Pilot	192 90
15	63	Maintenance	Groceries	J. W. English	11 00
15	64	Expense	Traveling expenses	L. L. McInnis	15 15
15	65	Mechanical Department	Supplies	G. W. Norrell	80
15	66	Maintenance	Flour	Texas Mill and Elevator Co.	26 00
15	67	Gas	Gas Pipe	Ripley & Bronson	178 86
15	68	Printing	Stationery	Reynolds & Reynolds	4 10
15	69	Library	Subscription	American Journal of Math	5 00
15	70	Library	Subscription	A. H. Raffe & Co.	24 85
15	71	Maintenance	Oil	Waters Pierce Oil Co.	12 50
15	72	Printing	Stationery	Globe Company	14 00
15	73	Horticultural Department	Freight	G. M. Dilley & Son	1 00
15	74	Maintenance	Groceries	Carson, Sewall & Co.	28 89

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. July 15	75	Expense	Telegrams	Western Union Telegraph Co	$0 90
.. 15	76	Printing	Express	Pacific Express Company	2 50
.. 15	77	Agricultural Department	Supplies	W. Koppe	85
.. 15	78	Expense	Box rent	Bryan postoffice	1 00
.. 15	79	Maintenance	Groceries	J. W. English	6 75
.. 15	80	Agricultural Department	Supplies	J. W. English	2 25
.. 15	81	Mechanical Department	Lumber	Garth & Nash	8 68
.. 15	82	Maintenance	Meal	Garth & Nash	13 70
.. 15	83	Agricultural Department	Repairs	Wooten & Son	5 60
.. 15	84	Agricultural Department	Repairs	Hanway & Son	1 50
.. 15	85	Agricultural Department	Supplies	G. W. Norrell	30
.. 15	86	Pfeuffer hall	Sand	H. S. Lockler	7 25
.. 15	87	Horticultural Department	Labor	Pete Sarrisky	14 00
.. 15	88	Cistern	Labor	John Pomelli	1 00
.. 15	89	Printing	Advertising	Democrat Publishing Company	22 05
.. 21	90	Mechanical Department	Freight	Houston and Texas Central Ry	17 85
.. 21	91	Repairs	Plasterer	O. Laconture	48 00
.. 21	92	Agricultural Department	Labor	G. W. Curtis	15 00
.. 21	93	Repairs	Supplies	G. W. Norrell	4 12
.. 30	94	Horticultural Department	Supplies	J. W. English	40
.. 30	95	Horticultural Department	Supplies	Wooten & Son	2 25
.. 30	96	Agricultural Department	Supplies	W. Koppe	1 00
.. 30	97	Repairs	Hardware	W. Koppe	2 06
.. 30	98	Cisterns	Hardware	W. Koppe	3 00
.. 30	99	Maintenance	Groceries	Carson, Sewall & Co	48 67
.. 30	100	Maintenance	Repairs	Wooten & Son	26 00
.. 30	101	Maintenance	Oil	Waters Pierce Oil Company	3 00
.. 30	102	Printing	Advertising	Dallas Herald	14 00
.. 30	103	Printing	Advertising	Baptist Herald	9 60
.. 30	104	Agricultural Department	Labor	J. H. Alsworth	75
.. 30	105	Printing	Advertising	San Antonio Freie Presse	10 00
.. 30	106	Printing	Advertising	Galveston News	42 38
.. 30	107	Mechanical Department	Supplies	Ripley & Bronson	18 52
.. 30	108	A. and M. conventions	Traveling expenses	L. L. McInnis	17 35
.. 30	109	Agricultural Department	Labor	John Turn	3 75
.. 30	110	Students repairs	Repairs to furniture	Smith Davis Manufacturing Co.	71 85
.. 30	111	Maintenance	Meal	Garth & Nash	15 58

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. July 30	112	Maintenance	Groceries	J. W. English	$2 17
.. 30	113	Expense	Exchange	First National Bank	9 62
.. 30	114	Maintenance	Wood	J. H. Sufer	51 55
.. 30	115	Cisterns	Labor	F. Gilbert	5 00
Aug. 1	116	Agricultural Department	Student labor	H. Ness	20 00
.. 1	117	Agricultural Department	Labor	J. M. Cross	25 50
.. 1	118	Agricultural Department	Horse	W. L. Bringhurst	50 00
.. 2	119	Pfeuffer hall	Sand	W. J. Moore	41 18
.. 4	120	Pfeuffer hall	Contractor	Garth & Nash	1,000 00
.. 4	121	Hospital	Contractor	Garth & Nash	400 00
.. 4	122	Farm house	Contractor	Garth & Nash	200 00
.. 4	123	Maintenance	Beef	W. C. Boyett	7 07
.. 5	124	Maintenance	Beef	W. C. Boyett	47 99
.. 6	125	Cisterns	Labor	F. Gilbert	10 90
.. 8	126	Salaries	Foreman farm	J. H. Alsworth	66 66
.. 8	127	A. and M. conventions	Traveling expenses	G. W. Curtis	19 65
.. 8	128	Cisterns	Labor	G. Geromonski	13 50
.. 8	129	Salaries	Agents board	T. M. Scott	62 50
.. 9	130	Printing	Blanks	Brazos Pilot	18 50
.. 9	131	Maintenance	Steward	B. Sbisa	33 33
.. 9	132	Maintenance	Supplies	B. Sbisa	115 90
.. 9	133	Maintenance	Wood	J. H. Suber	75 30
.. 13	134	Cisterns	Labor	F. Gilbert	19 10
.. 13	135	Maintenance	Labor	F. Gilbert	10 00
.. 13	136	Agricultural Department	Labor	H. Bowser	3 75
.. 13	137	Cisterns	Labor	Chas. Wheeler	20 00
.. 15	138	Cisterns	Labor	Tabok Kauton	1 05
.. 15	139	Bookstore	Express	B. Sbisa	1 80
.. 15	140	Expense	Express	B. Sbisa	1 70
.. 17	141	Printing	Advertising	Tri-weekly Herald	3 50
.. 17	142	Printing	Advertising	Texas Farmer	14 40
.. 17	143	B M. Halbert	Refunded	B. M. Halbert	4 75
.. 17	144	Maintenance	Flour	Texas Mill and Elevator Co.	25 25
.. 17	145	Printing	Advertising	Texas Christian Advocate	18 00
.. 17	146	Maintenance	Table linen	Sanger Bros	39 48
.. 17	147	Bookstore	Text books	D. L. Mussleman	16 60
.. 17	148	Bookstore	Text books	Timothy Moroney	27 33

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Aug. 17	149	Printing	Blanks	Clarke & Courts	$22 00
.. 17	150	Maintenance	Hardware	J. S. Brown Hardware Co	4 80
.. 17	151	Gas	Gas pipe	Ripley & Bronson	89
.. 17	152	Expense	Postage	W. C. Boyett	33 00
.. 17	153	Cisterns	Sand	W. J. Moore	22 28
.. 17	154	Maintenance	Groceries	J. W. English	33 19
.. 17	155	Maintenance	Supplies	G. W. Norrell	1 50
.. 17	156	Expense	Traveling expenses	L. L. McInnis	20 70
.. 17	157	Expense	Exchange	First National Bank	7 34
.. 17	158	Maintenance	Ice	Bryan Ice Co.	22 26
.. 17	159	Agricultural Department	Supplies	Hanway & Son	1 25
.. 17	160	Agricultural Department	Supplies	Wooten & Son	5 40
.. 17	161	Agricultural Department	Supplies	G. W. Norrell	25
.. 17	162	Maintenance	Supplies	Garth & Nash	65
.. 17	163	Agricultural Department	Supplies	Cole Bros.	7 00
.. 17	164	Maintenance	Supplies	G. W. Norrell	1 88
.. 17	165	Pfeuffer hall	Telegrams	Western Union Telegraph Co	80
. 17	166	Maintenance	Supplies	W. Koppe	2 00
.. 17	167	Gas	Pipe	W. Koppe	4 48
.. 17	168	Agricultural Department	Hardware	W. Koppe	3 50
.. 17	169	Cisterns	Labor	Bartos Wanjop	13 00
.. 19	170	Printing	Advertising	Express Publishing Company	15 00
.. 19	171	Library	Books	W. D. McDonald & Co.	6 00
.. 19	172	Cisterns	Brick	Charles Elliott	133 65
.. 19	173	Smith shop	Brick	Charles Elliott	93 65
.. 19	174	Salaries	Foreman shop	A. Harbers	44 00
.. 19	175	Cisterns	Labor	Jim Chapman	10 00
. 19	176	Cisterns	Labor	Chas. Wheeler	70 00
.. 19	177	Agricultural Department	Labor	Henry Bowser	4 12
.. 24	178	Cisterns	Cement	Garth & Nash	82 50
.. 24	179	Farm house	Contractor	Garth & Nash	41 25
.. 24	180	Hospital	Contractor	Garth & Nash	53 03
.. 24	181	Maintenance	Supplies	Garth & Nash	3 90
.. 24	182	Maintenance	Crockery ware	Z. Emmich	59 30
.. 24	183	Maintenance	Groceries	J. W. English	4 00
.. 24	184	Expense	Blanks	M. Strickland & Co.	11 00
.. 24	185	Maintenance	Supplies	Garth & Nash	1 63

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Aug. 24	186	Maintenance	Supplies	W. Koppe	$12 52
24	187	Library	Books	B. Westerman & Co.	4 54
24	188	Expense	Express	Pacific Express Company	30
24	189	Maintenance	Supplies	G. W. Norrell	85
25	190	Cisterns	Cement	Garth & Nash	89 00
25	191	Repairs	Ceiling mess hall	Garth & Nash	118 50
25	192	Library	Subscription	Texas Blade	1 50
26	193	Printing	Blanks	Texas Blade	2 00
26	194	Agricultural Department	Labor	J. Ellis & H. Bowser	5 25
27	195	Cisterns	Cement	Garth & Nash	19 00
27	196	Cisterns	Labor	C. Wheeler	10 00
27	197	Salaries	Member building committee	L. L. McInnis	150 00
27	198	Maintenance	Flour	Texas Mill and Elevator Co	100 00
27	199	Printing	Advertising	Denton Chronicle	2 50
27	200	Maintenance	Hardware	J. S. Brown Hardware Co	37 17
27	201	Repairs	Painting	W. A. Dodson	37 50
27	202	Printing	Advertising	Holland & Knox	15 75
27	203	Printing	Advertising	Clarksville Standard	7 50
27	204	Maintenance	Groceries	Carson, Sewall & Co	378 56
27	205	Horticultural Department	Supplies	J. W. English	40
29	206	Maintenance	Freight	Houston and Texas Central Ry	2 95
29	207	Salaries	Foreman farm	J. H. Alsworth	66 66
29	208	Maintenance	Janitor	Otto Boehme	56 00
29	209	Salaries	Foreman shop	A. Harbers	60 00
29	210	Horticultural Department	Labor	Dominico	24 30
29	211	Maintenance	Labor	Valentine Howard	4 00
29	212	Maintenance	Labor	A. Zorazil	10 00
29	213	Maintenance	Labor	Jesse Parks	53 33
30	214	Maintenance	Stoves	Excelsior Manufacturing Co	33 95
30	215	Cisterns	Labor	B. Sbisa	10 00
30	216	Gas	Labor	B. Sbisa	14 10
30	217	Pfeuffer hall	Labor	B. Sbisa	10 00
30	218	Maintenance	Lamp chimney	Ripley & Bronson	12 00
30	219	Agricultural Department	Supplies	Cole Bros	1 20
30	220	Repairs	Lumber	Garth & Nash	13 74
30	221	Maintenance	Hardware	W. Koppe	6 10
30	222	Horticultural Department	Postage	T. L. Bump	6 00

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.		No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.						
Aug.	30	223	Cisterns	Labor	Jim Chapman	$20 75
..	31	224	Agricultural Department	Student labor	H. Ness	20 00
..	31	225	Agricultural Department	Farm pay roll	G. W. Curtis	41 50
..	31	226	Printing	Blanks	Texas Blade	4 00
..	31	227	Pfeuffer hall	Stoves	Excelsior Manufacturing Co	100 00
..	31	228	Hospital	Stoves	Excelsior Manufacturing Co	30 00
..	31	229	Section-room furniture	Stoves	Excelsior Manufacturing Co	30 00
..	31	230	Students repairs	Stoves	Excelsior Manufacturing Co	27 98
..	31	231	Section-room furniture	Desks	J. B. Merwin Supply Company	60 22
..	31	232	Bookstore	Text books	D. Appleton & Co	24 85
..	31	233	Maintenance	Furniture	Scarritt Furniture Company	79 70
..	31	234	Maintenance	Mattresses	Houston Machine Mat. Co.	248 35
..	31	235	Maintenance	Groceries	Carson, Sewall & Co	29 06
	31	236	Maintenance	Supplies	J. S Brown Hardware Co	10 55
..	31	237	Maintenance	Labor	Wm. Robinson	32 67
..	31	238	Gas	Pipe	W. Koppe	2 50
..	31	239	Maintenance	Supplies	W. Koppe	15 75
..	31	240	Maintenance	Groceries	J. W. English	12 71
..	31	241	Pfeuffer hall	Furniture	Fink & Braotz	114 00
..	31	242	Maintenance	Furniture	Fink & Braotz	3 75
..	31	243	Pfeuffer Hall	Hardware	J. S. Brown Hardware Co	3 27
..	31	244	Maintenance	Beef	W. C. Boyett	58 60
..	31	245	Expense	Postage	W. C. Boyett	9 10
..	31	246	Maintenance	Supplies	B. Sbisa	110 88
..	31	247	Maintenance	Steward	B. Sbisa	33 33
Sept.	5	248	Maintenance	Supplies	J. H. Coffman	4 00
	8	249	Drawing Department	Material	E. & F. N. Span	4 22
..	8	250	Bookstore	Text books	B. Westermann	279 18
..	8	251	Maintenance	Supplies	W. Koppe	60
..	8	252	Maintenance	Beef	Franklin & Foreman	4 00
..	8	253	Maintenance	Supplies	Cole Bros	75
..	8	254	Maintenance	Ice	Bryan Ice Company	22 17
..	8	255	Agricultural Department	Supplies	W. Koppe	2 10
.	8	256	Agricultural Department	Supplies	Hanway & Son	1 50
	8	257	Agricultural Department	Supplies	Wooten & Son	1 95
.	8	258	Mechanical Department	Supplies	G. W. Norrell	1 50
..	8	259	Horticultural Department	Supplies	Hanway & Son	1 50

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Sept. 8	260	Mainntenance	Supplies	A. Stude.	$2 30
.. 8	261	Maintenance	Freight	Houston and Texas Central Ry.	1 32
.. 8	262	Bookstore.	Freight	Houston and Texas Central Ry.	5 55
.. 8	263	Maintenance	Furniture	Fink & Braotz	8 50
.. 8	264	Pfeuffer hall.	Traveling expenses	T. M. Scott	5 50
.. 10	265	Cisterns	Labor	J. Chapman	5 00
.. 10	266	Pfeuffer hall.	Contractors	Garth & Nash.	1,500 00
.. 14	267	Maintenance	Wood	J. H. Suber	63 75
.. 14	268	Pfeuffer hall	Labor	Geo. Deaton	10 00
.. 14	269	Repairs	Labor	Geo. Deaton	2 50
.. 14	270	Cisterns	Labor	O. Laconture	4 80
.. 14	271	Repairs	Labor	O. Laconture	2 75
.. 14	272	Smith shop	Labor	Adam Haley	50
.. 15	273	Expense	Stationery.	G. W. Norrell.	7 10
.. 15	274	Horticultural Department.	Seeds	East Texas Canning Co	5 51
.. 15	275	Maintenance	Groceries	J. W. English.	16 55
.. 15	276	Mechanical Department	Lumber	Garth & Nash.	10 40
.. 15	277	Mechanical Department	Lumber	Garth & Nash.	12 96
.. 15	278	Horticultural Department	Supplies	Buford & Hall	65
.. 15	279	Agricultural Department	Supplies	Wooten & Son	75
.. 15	280	Bookstore.	Text books	B. Westerman & Co	83 55
.. 15	281	Agricultural Department	Supplies	W. Koppe	2 60
.. 15	282	Maintenance	Supplies	W. Koppe.	27 69
.. 17	283	Agricultural Department	Labor	J. H. Alsworth	24 37
.. 20	284	Agricultural Department	Express	Pacific Express Company	3 00
.. 20	285	Horticultural Department	Express	Wells Fargo Express Company.	85
.. 20	286	Maintenance	Wood	J. H. Suber, Jr	52 66
.. 20	287	Agricultural Department	Labor	H. Bowser	4 50
.. 20	288	Cisterns	Labor	J. Chapman	25 00
.. 29	289	Horticultural Department	Express	Pacific Expres Company	2 30
.. 29	290	Bookstore.	Text books	B. Westerman & Co	163 18
.. 29	291	Pfeuffer hall	Hardware	J. S. Brown Hardware Co	2 72
.. 29	292	Expense	Stationery	G. W. Norrell	2 05
.. 29	293	Horticultural Department.	Postage	T. L. Bump.	1 25
.. 29	294	Bookstore	Drawing materials	J. W. McQueen & Co	101 09
.. 29	295	Bookstore	Text Books	A. Lovell & Co	23 76
.. 29	296	Horticultural Department	Microscope	Bausch & Lamb	44 25

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Sept. 29	297	Bookstore	Express	Wells Fargo Express Company	$18 05
... 29	298	Mechanical Department	Hardware	W. Koppe	72 04
... 29	299	Horticultural Department	Supplies	J. W. English	3 25
... 29	300	Mechanical Department	Lumber	Garth & Nash	7 91
... 29	301	Agricultural Department	Tools	Rawson Manufacturing Co	10 31
... 29	302	Cisterns	Cement	Garth & Nash	14 25
... 29	303	Maintenance	Groceries	J. W. English	49 57
... 29	304	Agricultural Department	Forage	L. A. Scott	318 50
... 29	305	Maintenance	Groceries	Carson, Sewall & Co	459 31
... 29	306	Agricultural Department	Lumber	Garth & Nash	11 76
... 29	307	Maintenance	Supplies	W. Koppe	8 59
... 29	308	Bookstore	Text books	H. C. Baird & Co	67 50
... 29	309	Maintenance	Mattresses	Houston Machine Mat. Co	35 65
... 29	310	Horticultural Department	Repairs	Wooten & Son	50
... 29	311	Mechanical Department	Freight	Houston and Texas Central Ry.	1 17
... 29	312	Horticultural Department	Hardware	J. S. Brown Hardware Co	24 70
... 29	313	Horticultural Department	Hardware	W. Koppe	2 70
... 29	314	Smith shop	Lumber	Garth & Nash	19 80
... 29	315	Creamery	Lumber	Garth & Nash	20 35
... 29	316	Pfeuffer hall	Contractor	Garth & Nash	2,500 00
... 29	317	Hospital	Contractor	Garth & Nash	400 00
... 29	318	Farm house	Contractor	Garth & Nash	300 00
... 29	319	Expense	Stationery	Wilkins & McGuire	6 00
... 30	320	Maintenance	Supplies	G. W. Norrell	1 65
... 30	321	Maintenance	Glassware	Missouri Glass Works	6 45
... 30	322	Smith shop	Hardware	W. Koppe	75
... 30	323	Mechanical Department	Hardware	W. Koppe	15 22
... 30	324	Mechanical Department	Supplies	Geo. Norrell	1 50
... 30	325	Maintenance	Supplies	W. Koppe	65
... 30	326	Maintenance	Labor	A. Zorozie	20 00
... 30	327	Maintenance	Labor	O. Boehme	22 50
.. 30	328	Pfeuffer hall	Labor	J. Geromonski	5 00
... 30	329	Smith shop	Labor	J. Geromonski	10 00
... 30	330	Cisterns	Labor	J. Lepaso	15 00
... 30	331	Maintenance	Labor	Jesse Parks	20 00
... 30	332	Maintenance	Groceries	J. W. English	3 25
... 30	333	Expense	....	J. S. Brown Hardware Co	2 63

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Oct. 1	334	Salaries	Foreman shop	A. Harbers	$60 00
... 1	335	Smith shop	Contractor	L. Weedon	70 00
... 1	336	Maintenance	Traveling expenses	T. M. Scott	5 60
... 3	337	Maintenance	Express	Wells Fargo Express Company	4 50
... 3	338	Expense	Express	Wells Fargo Express Company	60
... 3	339	Pfeuffer hall	Express	Wells Fargo Express Company	30
... 4	340	Horticultural Department	Labor	Dominico Bosinio	18 00
... 4	341	Expense	Labor	W. A. Dodson	11 85
... 4	342	Bookstore	Express	Pacific Express Company	1 40
... 4	343	Pfeuffer hall	Painting	W. A. Dodson	50 00
... 4	344	Hospital	Painting	W. A. Dodson	2 50
... 4	345	Farm house	Painting	W. A. Dodson	2 50
... 4	346	Salaries	Assistant professor chemistry and physics	D. Adriance	60 00
... 4	347	Salaries	Assistant professor in mechanics	F. E. Geisecke	60 00
... 4	348	Salaries	Foreman of farm	J. H. Alsworth	66 66
... 4	349	Salaries	Assistant professor mathematics	R. F. Smith	75 00
... 4	350	Salaries	Assistant professor English and history	W. B. Philpott	60 00
... 4	351	Salaries	Assistant professor agriculture	T. F. Duggan	20 00
... 4	352	Medical attendance	Surgeon	J. D. Read	100 00
... 4	353	Maintenance	Drummer	J. R. Fisk	20 00
... 4	354	Salaries	Gardener	G. E. Eberspocher	33 33
... 4	355	Maintenance	Beef	W. C. Boyett	257 65
... 4	356	Maintenance	Steward	B. Sbisa	166 66
... 8	357	Maintenance	Flour	Texas Mill and Elevator Co.	104 25
... 8	358	Agricultural Department	Pay roll	G. W. Curtis.	32 75
... 8	359	Agricultural Department	Student labor	H. Ness	16 60
... 11	360	Maintenance	Supplies	B. Sbisa	430 13
... 13	361	Smith shop	Sand	W. J. Moore	6 07
... 13	362	Farm house	Guttering	Cole Bros	18 95
... 13	363	Hospital	Guttering	Cole Bros	37 92
... 15	364	Agricultural Department	Implements	L. T. Fuller	7 50
.. 15	365	Horticultural Department	Implements	L. T. Fuller	7 50
... 15	366	Printing	Advertising	Texas Iron News	5 00
... 15	367	Maintenance	Groceries	Carson, Sewall & Co.	103 65
... 15	368	Expense	Printing	J. J. Pastoriza	1 05
... 15	369	Maintenance	Gasoline	Waters Pierce Oil Co.	115 22
... 15	370	Bookstore	Express	Wells Fargo Express Company	3 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Oct. 15	371	Maintenance	Express	Wells Fargo Express Company.	$28 26
15	372	Bookstore.	Text books	D. L. Mussleman	11 00
15	373	Maintenance	Laundry	Houston Steam Laundry	173 10
15	374	Horticultural Department.	Supplies	Garth & Nash.	6 07
15	375	Repairs.	Supplies.	Garth & Nash.	28 50
15	376	Maintenance	Ice	Bryan Ice Co.	28 06
15	377	Maintenance	Groceries	J. W. English.	44 92
15	378	Pfeuffer hall	Contractor	Garth & Nash	320 00
15	379	Hospital.	Contractor	Garth & Nash	100 00
15	380	Mechanical Department	Hardware	W. Koppe	45
15	381	Engineering Department	Hardware	W. Koppe	1 25
15	382	Maintenance	Hardware	W. Koppe	50
15	383	Agricultural Department	Repairs	A. Oswald	1 75
15	384	Agricultural Department	Repairs	Wooten & Son	10 85
15	385	Maintenance	Supplies	G. W. Norrell	2 30
15	386	Mechanical Department	Supplies	G. W. Norrell	1 00
15	387	Agricultural Department	Supplies	Hanway & Son	12 75
15	388	Expense	Blanks	Texas Blade.	3 00
15	389	Section-room furniture	Chairs	Scarritt Furniture Company	112 55
15	390	Bookstore	Text books	B. Westerman & Co.	97 53
15	391	Smith shop	Contractor	L. Weedon	32 50
15	392	Horticultural Department	Supplies	G. W. Norrell	80
15	393	Maintenance	Oil	Waters Pierce Oil Company	10 07
15	394	J. P. Aiken	Refunded	J. P. Aiken	23 00
15	395	Maintenance	Groceries	J. W. English	7 20
15	396	Mechanical Department	Lumber	Garth & Nash	9 26
20	397	Agricultural Department	Lumber	Garth & Nash	46 57
20	398	Agricultural Department	Supplies	Garth & Nash.	75
20	399	Mechanical Department	Supplies	Harrison Boiler Works.	50
20	400	Mechanical Department	Tools	F. Van Winkle	10 76
20	401	Maintenance	Groceries	Carson, Sewall & Co.	1 00
20	402	Maintenance	Groceries	L. A. Scott	13 00
20	403	A. and M. conventions.	Traveling expenses.	G. W. Curtis	100 95
20	404	Chemical Department	Minerals	C. H. Pennybacker.	69 00
20	405	Chemical Department	Apparatus.	J. F. Dumble	18 30
20	406	Horticultural Department	Supplies	Carson, Sewall & Co.	11 63
20	407	Maintenance	Supplies	Carson, Sewall & Co.	15 26

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.		No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.						
Oct.	20	408	Horticultural Department	Tools	L. M. Rumsey Manufact'ng Co	$34 52
..	25	409	Salaries	Agent board	T. M. Scott	187 50
..	31	410	Pfeuffer hall	Stove pipe	W. Koppe	38 00
..	31	411	Maintenance	Stove pipe	W. Koppe	16 40
..	31	412	Maintenance	Groceries	J. W. English	18 30
..	31	413	Military Department	Swords	J. H. McKinney & Co	87 50
..	31	414	Maintenance	Hardware	W. Korpe	5 60
..	31	415	Horticultural Department	Supplies	G. W. Norrell	25
..	31	416	Agricultural Department	Supplies	G. W. Norrell	20
..	31	417	Agricultural Department	Supplies	W. Koppe	20
..	31	418	Chemical Department	Supplies	R. F. Smith	1 00
Nov.	2	419	A. C. Martin	Refunded	A. C. Martin	15 00
..	2	420	Agricultural Department	Microscope	W. H. Wamsley & Co	34 20
..	7	421	Maintenance	Groceries	Carson, Sewall & Co	385 03
..	7	422	Maintenance	Oil	Waters Pierce Oil Co	6 00
..	7	423	Agricultural Department	Forage	Texas Mill and Elevator Co	181 75
..	7	424	Maintenance	Flour	Texas Mill and Elevator Co	97 05
..	7	425	Repairs	Supplies	Hanway & Son	80
..	7	426	Farm house	Contractor	Garth & Nash	87 00
..	7	427	Agricultural Department	Express	Pacific Express Company	1 55
..	7	428	Maintenance	Ice	Bryan Ice Co	6 15
..	7	429	Expense	Box rent	Bryan postoffice	1 00
..	7	430	Mechanical Department	Lumber	Garth & Nash	6 91
..	7	431	Salaries	Assistant mathematician	R. F. Smith	75 00
..	7	432	Maintenance	Express	Wells Fargo Express Company	45 55
..	7	433	Medical attendance	Surgeon	J. D. Read	100 00
..	7	434	Salaries	Foreman farm	A. Harbers	60 00
..	7	435	Agricultural Department	Pay roll	J. H. Alsworth	50 65
..	7	436	Salaries	Assistant in English	W. B. Philpott	60 00
..	7	437	Maintenance	Drummer	J. R. Fisk	20 00
..	7	438	Maintenance	Beef	W. C. Boyett	258 31
..	7	439	Maintenance	Steward	B. Sbisa	166 66
..	7	440	Salaries	Assistant in chemistry	D. Adriance	60 00
..	7	441	Salaries	Assistant in agriculture	J. F. Duggan	60 00
..	10	442	Salaries	Assistant in mechanics	F. E. Geisecke	60 00
..	10	443	Salaries	Foreman farm	J. H. Alsworth	66 66
..	10	444	Salaries	Foreman Garden	G. E. Eberspocher	33 33

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Nov. 10	445	Smith shop	Contractor	H. P. Stacy	$226 00
.. 10	446	Maintenance	Janitor	Jesse Parks	20 00
.. 10	447	Maintenance	Supplies	B. Sbisa	484 12
.. 10	448	Maintenance	Janitor	A. Zorazil	20 00
.. 10	449	Hospital	Supplies	J. D. Read	1 50
.. 10	450	Horticultural Department	Labor	Dominico Bosinio	18 00
.. 10	451	Mechanical Department	Labor	J. Gerominski	13 50
.. 10	452	Expense	Stationery	G. W. Norrell	1 40
.. 14	453	Horticultural Department	Supplies	Wooten & Son	70
.. 14	454	Maintenance	Supplies	W. Koppe	1 20
.. 14	455	Horticultural Department	Supplies	W. Koppe	2 81
.. 14	456	Expense	Telegrams	Western Union Telegraph Co	1 85
.. 14	457	Pfeuffer hall	Hardware	W. Koppe	2 50
.. 14	458	Maintenance	Laundry	Houston Steam Laundry	221 90
.. 14	459	Educational exhibit at Dallas Fair	Expense	L. L. McInnis	9 75
.. 14	460	Mechanical Department	Labor	P. Winter	5 00
.. 14	461	Expense	Traveling expenses	L. L. McInnis	9 25
.. 14	462	Repairs	Labor	J. H. Alsworth	4 49
.. 14	463	Maintenance	Groceries	J. W. English	7 20
.. 14	464	Military Department	Supplies	Guy Carleton	1 00
.. 14	465	Horticultural Department	Labor	Dominico Bosinio	7 80
.. 15	466	Horticultural Department	Labor	J. Lepaso	20 50
. 15	467	Horticultural Department	Express	Pacific Express Company	45
.. 15	468	Agricultural Department	Student labor	H. Ness	12 55
.. 15	469	E. B. Baker	Refunded	E. B. Baker	30 00
.. 15	470	Horticultural Department	Brick	Chas. Elliott	91 57
.. 15	471	Smith shop	Brick	Chas. Elliott	57 75
.. 16	472	A. Wangemann	Refunded	A. Wangemann	30 00
.. 16	473	Expense	Exchange	First National Bank	12 56
.. 16	474	Expense	Exchange	First National Bank	25
.. 17	475	Maintenance	Express	W. C. Boyett	5 35
.. 17	476	Chemical Department	Freight	Houston and Texas Central Ry.	12 17
.. 17	477	Maintenance	Groceries	Carson, Sewall & Co	14 65
.. 18	478	Agricultural Department	Tools	C. W. Alsworth	7 12
.. 18	479	Maintenance	Laundry	Dallas Steam Laundry	140 85
.. 22	480	Repairs	Labor	Peter Winter	22 60
.. 22	481	Cisterns	Labor	Peter Winter	133 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Nov. 25	482	Maintenance	Janitor	O. Boehme	$25 00
26	483	Creamery	Labor	Bill Smith	2 00
.. 28	484	Maintenance	Wood	J. H. Suber	113 15
.. 31	485	Pfeuffer hall	Sand	L. F. Battle	50
.. 31	486	Agricultural Department	Freight	Pacific Express Company	35
Dec. 1	487	Salaries	Foreman farm	J. H. Alsworth	66 66
. 1	488	Expense	Labor	Jos. Geromonski	15 00
.. 1	489	Expense	Hardware	W. Koppe	2 00
.. 1	490	Maintenance	Washing	Houston Steam Laundry	113 05
.. 1	491	Maintenance	Oil	Waters Pierce Oil Co.	6 00
.. 1	492	Maintenance	Flour	Texas Mill and Elevator Co.	97 27
.. 1	493	Maintenance	Supplies	J. W. English	11 95
.. 1	494	Maintenance	Groceries	Carson, Sewall & Co	235 75
.. 1	495	Agricultural Department	Supplies	J. W. English	2 55
.. 1	496	Horticultural Department	Supplies	J. W. English	1 60
.. 1	497	Repairs	Glass	Jas. Bute	18 35
.. 1	498	Mechanical Department	Hardware	W. Koppe	3 95
. 2	499	Agricultural Department	Labor	B. Sbisa	30 00
.. 2	500	Salaries	Foreman shop	A. Harbers	60 00
.. 2	501	Salaries	Gardener	G. E. Eberspocher	33 33
.. 2	502	Salaries	Assistant mechanical engineer	F. E. Gieseche	60 00
.. 2	503	Salaries	Assistant in agriculture	J. F. Duggan	60 00
.. 2	504	Salaries	Assistant in chemistry	D. Adriance	60 00
.. 2	505	Maintenance	Drummer	J. R. Fisk	20 00
.. 2	506	Salaries	Assistant in English	W. B. Philpott	60 00
.. 2	507	Medical attendance	Surgeon	J. D. Read	100 00
.. 2	508	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 2	509	Maintenance	Janitor	A. Zorazil	20 00
.. 2	510	Maintenance	Steward	B. Sbisa	145 24
.. 2	511	Educational exhibit	Dallas Fair	R. F. Smith and others	65 00
.. 2	512	Maintenance	Janitor	Otto Boehme	25 00
. 3	513	J. N. Stowe	Refunded	J. N. Stowe	10 00
.. 3	514	Agricultural Department	Labor	J. H. Alsworth	46 90
.. 5	515	Maintenance	Beef	W. C. Boyett	232 80
.. 5	516	Maintenance	Freight	Wells, Fargo & Co	7 55
.. 5	517	Expense	Freight	Wells, Fargo & Co	2 50
.. 5	518	Maintenance	Freight	Wells, Fargo & Co	52 56

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Dec. 5	519	Maintenance	Groceries and supplies	B. Sbisa	$565 40
.. 5	520	Maintenance	Groceries and supplies	J. W. English	1 60
.. 5	521	Maintenance	Freight	Pacific Express Company	35
.. 5	522	Maintenance	Groceries	Carson, Sewall & Co	82 95
.. 5	523	Chemical Department	Supplies	Eisner & Vincent	120 27
.. 5	524	Mechanical Department	Lumber	Garth & Nash	7 76
.. 5	525	Horticultural Department	Repairs	Wooten & Son	65
.. 5	526	Horticultural Department	Supplies	T. L. Brunk	1 25
.. 5	527	Military Department	Supplies	Hanway & Son	10 50
.. 5	528	Salaries	Agent board	T. M. Scott	62 50
.. 5	529	Expenses	Traveling for college	T. M. Scott	2 60
.. 9	530	Creamery	Labor	Bill Smith	18 00
.. 17	531	Agricultural Department	Labor	H. Ness	10 50
.. 17	532	Agricultural Department	Supplies	Garth & Nash	1 50
.. 17	533	Maintenance	Gasoline	Waters Pierce Oil Company	152 13
.. 17	534	Maintenance	Supplies	W. Koppe	75
.. 17	535	Bookstore	Books	F. A. Gulley	31 50
.. 17	536	Maintenance	Groceries	J. W. English	13 05
.. 17	537	Printing		Brazos Pilot	3 00
.. 17	538	Smith shop	Painting	W. A. Dodson	16 00
.. 17	539	Mechanical Department	Painting	W. A. Dodson	29 00
.. 17	540	Maintenance	Janitor	Jesse Parks	20 00
.. 19	541	Creamery	Labor	Jim Chapman	30 00
.. 19	542	Agricultural Department	Labor	J. R. Vennoy	7 25
.. 19	543	Maintenance	Labor	B. Wasujok	3 00
.. 20	544	Maintenance	Freight	Houston and Texas Central Ry.	147 71
.. 20	545	Bookstore	Freight	Houston and Texas Central Ry.	1 52
.. 20	546	Expense	Traveling expenses	C. C. Garrett	11 60
.. 21	547	Creamery	Brick	Chas. Elliott	165 00
.. 24	548	Bookstore	Books	D. Appleton & Co.	65 75
.. 24	549	Bookstore	Books	O. Judd & Co	4 78
.. 24	550	Bookstore	Books	A. Holt & Co	1 19
.. 24	551	Bookstore	Books	J. E. Bothen & Co	43 20
.. 24	552	Mechanical Department	Supplies	F. Van Winkle	6 08
.. 24	553	Horticultural Department	Seeds	Plant Seed Company	7 54
.. 24	554	Agricultural Department	Labor	Jas. Hall	11 50
.. 24	555	Repairs	Supplies	G. W. Norrell	50

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Dec. 24	556	Expense	Traveling expenses.	T. M. Scott	$14 70
.. 24	557	Expense	Traveling expenses.	W. R. Cavitt	15 10
.. 24	558	Expense.	Carriage	Monroe Miller	8 00
.. 24	559	Maintenance	Drummer	J. R. Fisk	20 00
.. 24	560	Expense	Traveling expenses	W. L. Bringhurst	12 70
.. 24	561	Expense	Traveling expenses.	R. H. Whitlock	14 30
.. 24	562	Expense	Traveling expenses	L. L. McInnis	33 35
.. 29	563	Maintenance	Washing	Houston Steam Laundry	203 35
.. 29	564	Maintenance.	Freight	Houston and Texas Central Ry.	28 18
.. 29	565	Horticultural Department	Freight	Houston and Texas Central Ry	12 80
1888.					
Jan. 3	566	Maintenance	Beef.	W. C. Boyett	241 86
.. 3	567	Salaries	Gardener	G. E. Eberspocher	33 33
.. 5	568	Bookstore	Books.	Robt. Clark & Co	11 53
.. 5	569	Bookstore	Books	B. Westerman & Co.	340 52
.. 5	570	Agricultural Department	Labor	J. H. Alsworth	30 60
.. 5	571	Agricultural Department	Labor	H. Ness	10 85
.. 5	572	Maintenance	Labor	J. Geromonski	8 00
.. 5	573	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 5	574	Medical attendance	Surgeon	J. D. Read	100 00
.. 5	575	Salaries	Assistant in English	W. B. Philpott	60 00
.. 5	576	Salaries	Assistant chemist	D. Adriance	60 00
.. 5	577	Salaries	Assistant in agriculture	J. F. Duggan	60 00
.. 5	578	Salaries	Assistant in mechanical engineering	F. E. Geisecke	60 00
.. 5	579	Maintenance	Steward	B. Sbisa	145 24
.. 5	580	Maintenance	Janitor	Jesse Parks	20 00
.. 5	581	Maintenance	Janitor	O. Boehme	25 00
. 5	582	Maintenance	Janitor	A. Zorazil	20 00
.. 6	583	Maintenance	Flour.	Texas Mill and Elevator Co.	98 11
.. 6	584	Maintenance	Groceries	Carson, Sewall & Co.	115 27
.. 6	585	Maintenance	Oil	Waters Pierce Oil Co.	9 00
.. 6	586	Expense		L. L. McInnis	4 85
.. 6	587	Maintenance		Garth & Nash	1 65
.. 6	588	Maintenance	Supplies.	J. W. English	3 25
.. 6	589	Maintenance	Supplies	Rubenstein	2 00
.. 6	590	Salaries.	Foreman farm	J. H. Alsworth.	66 66
.. 6	591	Repairs		W. Koppe	1 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.					
Jan. 6	592	Chemical Department	Ore samples	C. H. Pennybacker	$25 00
.. 6	593	Maintenance	Groceries	Thurber, Whyland & Co.	1,437 67
.. 6	594	Agricultural Department	Supplies	W. Koppe.	15
.. 6	595	Mechanical Department	Supplies	W. Koppe	35
.. 6	596	Library	Books	W. D. McDonald & Co.	6 00
.. 6	597	Expense	Postoffice box rent	J. Q. Tober	1 00
.. 6	598	Bookstore	Supplies	Bausch & Lamb	25 00
.. 6	599	Mechanical Department	Wood for furnace	J. H. Suber	56 58
.. 6	600	Library	Books	B. Westermann & Co.	4 50
.. 7	601	Agricultural Department		Jno. Christie	50 55
.. 7	602	Creamery	Labor	Jim Chapman	20 00
.. 7	603	Salaries	Foreman shop	A. Harbers	75 00
.. 7	604	Maintenance	Groceries and supplies	B. Sbisa	475 15
7	605	Library	Periodicals	Journal of Commerce	1 50
.. 7	606	Horticultural Department	Supplies	W. Koppe	1 00
.. 7	607	Agricultural Department	Hardware	J. S. Brown & Co	6 30
.. 10	608	Horticultural Department	Supplies	Sipples, Perkins & Co	13 12
.. 10	609	Horticultural Department	Hardware	W. Koppe.	79
.. 10	610	Agricultural Department	Hardware	W. Koppe.	1 70
.. 10	611	Agricultural Department	Supplies	G. W. Norrell	75
.. 10	612	Expense	Telegrams	Western Union Telegraph Co.	1 20
. 10	613	Maintenance	Supplies	J. W. English	2 70
.. 10	614	Maintenance	Supplies	W. Koppe	2 10
.. 10	615	Mechanical Department	Supplies	W. Koppe	50
.. 10	616	Mechanical Department	Supplies	Garth & Nash	5 84
.. 10	617	Agricultural Department	Supplies	W. C. Boyett	39 60
12	618	Maintenance	Freight	Wells-Fa go Express Company.	44 90
.. 12	619	Bookstore	Freight	Wells-Fargo Express Company.	2 50
.. 14	620	Agricultural Department	Oats	L. A. Scott	246 00
.. 30	621	F. G. Sanderson	Refunded	F. G. Sanderson	15 00
.. 31	622	Maintenance	Groceries	J. W. English.	19 93
.. 31	623	Maintenance	Washing	Houston Steam Laundry	202 30
.. 31	624	Maintenance	Hardware	W. Koppe	12 30
. 31	625	Expense	Hardware	W. Koppe	1 90
31	626	Expense.	Stationery	Geo. W. Norrell.	3 10
. 31	627	Maintenance	Supplies	Cole Bros	4 05
. 31	628	Maintenance	Groceries	Carson, Sewall & Co	14 85

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. Jan. 31	629	Maintenance	Gasoline	Waters Pierce Oil Co.	$136 86
.. 31	630	Bookstore	Books	F. A. Gulley.	6 84
.. 31	631	Bookstore	Books	Clark & Maynard	15 86
.. 31	632	Expense	Furniture, office	J. B. Merrim Supply Company	10 70
.. 31	633	Mechanical Department	Supplies.	J. R. Morris & Son	6 75
.. 31	634	Chemical Department	Supplies	W. Koppe	3 50
.. 31	635	Mechanical Department	Supplies	Garth & Nash.	2 06
.. 31	636	Chemical Department	Supplies	W. Koppe	4 05
.. 31	637	Creamery	Contractors	Garth & Nash.	14 20
.. 31	638	Library	Book	J. H. Brown.	3 00
.. 31	639	Propagating house	Supplies	A. McGowan	16 75
.. 31	640	Agricultural Department	Hardware	W. Koppe.	1 00
.. 31	641	Creamery	Contractor	Garth & Nash	9 50
31	642	Agricultural Department	Printing.	J. J. Pastoriza	66 35
31	643	Salaries	Agent board	T. M. Scott	125 00
.. 31	644	Maintenance	Supplies	W. Koppe	10 05
.. 31	645	G. Y. Bird	Refunded	G. Y. Bird	12 00
.. 31	646	A. Holmes.	Refunded	A. Holmes	30 00
.. 31	647	J. H. Noble	Refunded	J. H. Noble	20 00
.. 31	648	Maintenance	Groceries	J. W. English	8 83
.. 31	649	Agricultural Department	Supplies	W. Koppe.	8 65
. 31	650	Mechanical Department	Supplies	W. Koppe	30
.. 31	651	Agricultural Department	Supplies	Hanway & Son	6 10
.. 31	652	W. C. Connor	Refunded	W. C. Connor	13 50
.. 31	653	Chemical Department	Supplies	Eisner & Vincent	8 00
.. 31	654	Agricultural Department	Labor.	J. H. Alsworth	37 50
.. 31	655	Horticultural Department.	Seed.	Plant Seed Company.	29 02
.. 31	656	O. Gross	Refunded	O. Gross	17 00
.. 31	657	B. R. Plumley.	Refunded	B. R. Plumley	18 50
.. 31	658	J. M. McNeill	Refunded	J. M. McNeill.	17 40
.. 31	659	F. F. Simms	Refunded	F. F. Sims	17 85
. 31	660	L. Henderson	Refunded	L. Henderson	20 00
. 31	661	R. M. Connor	Refunded	R. M. Cannor.	30 00
.. 31	662	R. L. Baker	Refunded	R. L. Baker	20 00
.. 31	663	W. S. Rudasill	Refunded	W. S. Rudasill	20 00
.. 31	664	Medical attendance	Surgeon	J. D. Read.	100 00
.. 31	665	Salaries	Assistant in English	W. B. Philpott	60 00

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.					
Jan. 31	666	Salaries	Assistant chemist	D. Adriance	$60 00
.. 31	667	Salaries	Assistant mechanical engineer	F. E. Geisecke	60 00
.. 31	668	Salaries	Assistant in agriculture	J. F. Duggan	60 00
.. 31	669	Salaries	Assistant mathematician	R. F. Smith	90 00
.. 31	670	Salaries	Foreman shop	A. Harbers	75 00
.. 31	671	Salaries	Foreman farm	J. H. Alsworth	66 66
.. 31	672	Maintenance	Drummer	J. R. Fisk	20 00
.. 31	673	Salaries	Gardener	G. E. Eberspocher	33 33
.. 31	674	Maintenance	Janitor	A. Zorazil	20 00
Feb. 2	675	Maintenance	Janitor	O. Boehme	25 00
.. 2	676	Maintenance	Janitor	Jesse Parks	20 00
.. 2	677	Maintenance	Steward	B. Sbisa	145 24
.. 2	678	Chemical Department	Books	Mrs. T. E. Dinwiddie	1 75
.. 2	679	Maintenance	Wood	Mrs. T. E. Dinwiddie	6 00
.. 2	680	Repairs	At residence	Mrs. T. E. Dinwiddie	80 00
.. 2	681	Expense	Typewriter	Mrs. T. E. Dinwiddie	85 00
.. 2	682	Library	Books	Mrs. T. E. Dinwiddie	100 00
.. 3	683	Expense		G. W. Curtis	30 00
.. 4	684	Maintenance	Labor	Jos. Geromonski	8 50
.. 6	685	Expense	Traveling for college	C. C. Garrett	14 10
.. 6	686	G. R. Cottingham	Refunded	G. R. Cottingham	15 00
.. 6	687	Maintenance	Beef	W. C. Boyett	247 40
.. 6	688	Expense	Postage	W. C. Boyett	41 30
.. 6	689	Agricultural Department	Freight	W. C. Boyett	7 00
.. 9	690	Maintenance	Groceries and supplies	B. Sbisa	433 69
.. 9	691	Maintenance	Freight	Wells-Fargo Express Company	50 15
.. 9	692	Horticultural Department	Freight	Wells-Fargo Express Company	1 55
.. 9	693	Agricultural Department	Freight	Wells-Fargo Express Company	75
.. 16	695	Museum	Furniture	Scarritt Furniture Company	31 51
.. 16	697	Expense	Printing	Farm and Ranch	3 00
.. 16	698	Maintenance	Gasoline	Waters Pierce Oil Co.	127 26
.. 16	699	Maintenance	Flour	Texas Mill and Elevator Co	63 25
.. 16	700	Maintenance	Meal	L. A. Scott	16 50
.. 16	701	Maintenance	Groceries	Carson, Sewall & Co	76 94
.. 16	702	Maintenance	Washing	Houston Steam Laundry	131 60
.. 16	703	Agricultural Department	Hardware	W. Koppe	40
.. 16	704	Expense	Printing	Brazos Pilot	9 00

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. Feb. 16	705	Repairs	Hardware	W. Koppe	$2 35
16	706	Creamery	Contractor	Garth & Nash	21 65
16	707	Agricultural Department	Lumber	Garth & Nash	7 20
16	708	Propagating house	Contractors	Garth & Nash	12 95
16	709	Agricultural Department	Supplies	J. W. English	1 35
16	710	Agricultural Department	Repairs to implements	A. Oswald	2 55
16	711	Horticultural Department	Repairs to implements	Willie Wooten	2 50
16	712	Expense	Secretary Board	L. L. McInnis	25 00
16	713	Expense	Supplies	Cole Bros	15 13
16	714	Repairs	Supplies	Cole Bros	2 80
16	715	Expense	Dry goods	Webb Bros	9 78
16	716	Maintenance	Groceries	J. W. English	13 39
16	717	Mechanical Department	Supplies	G. W. Norrell	1 50
16	718	Mechanical Department	Supplies	Garth & Nash	1 68
16	719	Mechanical Department	Hardware	W. Koppe	90
16	720	Chemical Department	Supplies	G. W. Norrell	6 65
17	722	Propagating house	Labor	L. E. Weeden	7 50
17	723	Repairs	Labor	L. E. Weeden	20 00
20	724	Expense		L. White	1 70
20	725	Maintenance		L. White	11 00
20	726	Printing	Advertising	Semi-Weekly Texan	3 00
20	727	Library	Files	Globe Co	19 90
20	729	Expense	File boxes	Globe Co	40 94
20	730	Agricultural Department	File boxes	Globe Co	7 50
20	731	Horticultural Department	Supplies	Carson, Sewall & Co	23 42
20	732	Maintenance	Groceries	Carson, Sewall & Co	17 33
20	733	Library	Books	B. Westermann & Co	4 50
20	734	Bookstore	Books	B. Westermann & Co	207 83
20	735	Agricultural Department	Labor	A. Jostram	10 15
20	736	Maintenance	Oil	Waters Pierce Oil Company	6 00
20	737	Library	Books	B. Westermann & Co	38 32
20	738	Horticultural Department	Trees	Wm. Radam	10 30
20	739	E. M. Campbell	Refunded	C. M. Campbell	70 00
20	740	Bookstore	Books	Clark & Maynard	1 98
20	741	Mechanical Department	Lumber	Garth & Nash	2 56
20	742	Propagating house	Supplies	W. Koppe	16 55
20	743	Propagating house	Contractor	Garth & Nash	24 98

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.					
Feb. 20	744	Hennery	Lumber	Garth & Nash	$4 62
.. 20	745	Maintenance	Groceries	J. W. English	3 95
.. 20	746	W. J. Keppler.	Refunded	W. J. Keppler	5 00
.. 20	747	Maintenance	Flour.	Texas Mill and Elevator Co.	35 46
.. 20	748	Museum.	Furniture	Eisnen & Amend	68 39
.. 20	750	Chemical Department	Supplies.	Eisnen & Amend	163 43
.. 20	753	Salaries.	Assistant mathematician	R. F. Smith	90 00
.. 20	754	Maintenance	Washing	Houston Steam Laundry	123 55
Mar. 5	755	Expense	Stationery	L. J. Babbett	3 66
.. 5	756	Salaries	Gardener	G. E. Eberspocher	33 33
.. 5	757	Horticultural Department	Labor	Geo. Stilz.	9 00
.. 5	758	Agricultural Department	Labor	J. H. Alsworth	60 00
.. 5	759	Agricultural Department	Labor	H. Ness	25 80
.. 5	760	Maintenance	Labor	J. Geromonski	14 00
.. 5	761	Salaries	Foreman shop	A. Harbers	75 00
.. 5	762	Maintenance	Servant at hospital	L. Parks	6 00
.. 5	764	Propagating house.	Labor	L. E. Weeden	20 00
.. 5	765	Agricultural Department	Labor	J. W. Birdwell	2 25
.. 5	766	Salaries	Assistant Prof. of chemistry	D. Adriance.	60 00
.. 5	767	Maintenance	Janitor	O. Boehme	25 00
.. 5	768	Maintenance	Drummer	J. R. Fisk	20 00
.. 5	769	Salaries	Foreman farm	J. H. Alsworth	66 66
.. 5	770	Salaries	Assistant Prof. of mechanics	F. E. Geisecke	60 00
.. 5	771	Salaries	Assistant Prof. of English	W B. Philpott	60 00
.. 5	772	Salaries.	Assistant Prof. of agriculture	J. F. Duggan	60 00
.. 5	773	Medical attendance	Surgeon's salary	J. D. Read	100 00
.. 5	774	Maintenance	Stewart's salary	B. Sbisa	145 24
.. 5	775	Maintenance	Janitor	Jesse Parks.	20 00
.. 5	776	Maintenance	Janitor.	Anton Zorazil	20 00
.. 5	778	Maintenance	Freight	Wells Fargo Express Company.	50 85
.. 5	779	Maintenance	Freight	Houston and Texas Central Ry	13 20
.. 5	780	Chemical department	Freight	Houston and Texas Central Ry.	1 92
.. 5	781	Bookstore	Express charges on books	Wells Fargo Express Company	3 00
.. 5	782	Agricultural Department	Freight	Wells Fargo Express Company	30
5	784	Repairs	Lumber	Garth & Nash	9 28
.. 5	785	Farm house	Lumber	Garth & Nash	8 77
.. 5	786	Creamery	Labor	Bartos Wasujok	17 60

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.					
Mar. 5	787	Maintenance	Groceries and servants	B. Sbisa	$238 01
.. 5	788	Maintenance	Beef	W. C. Boyett	248 45
.. 5	789	Expense	Traveling expenses	C. C. Garrett	13 50
.. 5	790	Maintenance	Groceries	Carson, Sewall & Co	44 16
.. 5	791	Maintenance	Oil	Waters Pierce Oil Company	25 35
.. 5	792	Expense	Stationery	G. W. Norrell	50
.. 5	793	Maintenance	Meal	L. A. Scott	17 25
.. 5	794	Maintenance	Flour	Texas Mill and Elevator Co	94 56
.. 5	795	Maintenance	Groceries	J. W. English	14 20
.. 5	796	Expense	Supplies	J. H. McKenney & Co	3 55
.. 5	797	Mechanical Department	Supplies	G. W. Norrell	3 20
. 5	798	Mechanical Department	Lumber	Garth & Nash	4 69
.. 5	799	Horticultural Department	Seeds	Plant Seed Company	22 45
.. 5	800	Agricultural Department	Hardware	W. Koppe	3 50
.. 5	801	Library	Periodicals for library	K. subscribtion agency	92 65
.. 5	802	Bookstore	Supplies	J. W. Queen & Co	10 35
.. 5	803	Bookstore	Books	H. B. Mayo	7 50
.. 5	804	Bookstore	Books	Van Antwerp, Bragg & Co	32 40
.. 5	805	Expense	Salary of clerk	G. A. Rogers	16 67
.. 5	806	Maintenance	Groceries and supplies	B. Sbisa	208 84
.. 5	807	Expense	Traveling for college	T. M. Scott	6 00
.. 5	809	Expense	Traveling for college	L. L. McInnis	6 00
.. 5	810	Agricultural Department	Labor	H. Bowser	7 50
.. 5	811	Library	Books	A. C. McCleary & Co	43 21
.. 5	812	Museum	Furniture	Scarritt Furniture Company	55 00
.. 5	813	Horticultural Department	Hardware	J. S. Brown Hardware Company	27 71
.. 5	814	Expense	Exchange	First National Bank	7 35
.. 28	816	Mathematical Department	Instrument	T. F. Randolph	32 75
.. 28	817	Horticultural Department	Seed	Peter Henderson & Co	3 87
.. 28	818	Horticultural Department	Seed	Hill, Settle & Co	6 35
.. 28	819	Expenses	Writing papers	Reynolds & Reynolds	17 05
.. 28	820	Maintenance	Groceries	Carson, Sewall & Co	14 57
.. 28	821	Maintenance	Washing	Houston Steam Laundry	121 45
.. 28	822	Maintenance	Meal	L. A. Scott	16 00
.. 28	823	Maintenance	Flour	Texas Mill and Elevator Co	23 15
.. 28	824	Bookstore	Books	D. Van Nostrand	26 00
.. 28	825	Agricultural Department	Hardware	Henderson Manufacturing Co	6 50

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. Mar. 28	826	Horticultural Department	Seed	Darwin & Baker Bros.	$4 25
28	827	F. Guenther	Refunded	F. Guenther	35 00
28	828	Horticultural Department	Seed	Yoakum Seed Company	1 29
28	829	Hospital	Repairs	Garth & Nash	8 00
28	830	Museum	Supplies	W. Koppe	75
28	831	Museum	Supplies	G. W. Norrell	75
28	833	Expense	Lumber	Garth & Nash	1 44
28	832	Expense	Telegrams	Western Union Telegraph Co.	1 20
28	834	Maintenance	Groceries	J. W. English	24 95
28	835	Mechanical Department	Hardware	W. Koppe	1 55
28	836	Mechanical Department	Lumber	Garth & Nash	2 23
28	837	Creamery	Labor	J. Geromonski.	4 50
28	838	Agricultural Department	Supplies	Hanway & Son	3 50
28	839	Agricultural Department	Lumber	Garth & Nash	15 45
28	840	Horticultural Department	Hardware	W. Koppe	6 65
28	841	Agricultural Department	Hardware	W. Koppe	1 65
28	842	J. & J. R. Nichols	Refunded	J. & J. R. Nichols	24 00
28	843	Agricultural Department	Repairs to implements	A. Oswald	2 95
28	844	Repairs	Lumber	Garth & Nash	4 38
28	845	Salaries	Agent board	T. M. Scott	125 00
30	846	Salaries	Gardener	G. E. Eberspocher	33 33
30	847	Horticultural Department	Labor	Geo. Stilz	18 00
30	848	Expense	Bookkeeper	G. A. Rogers	16 67
30	849	Maintenance	Janitor	Jesse Parks	20 00
30	850	Maintenance	Janitor	Otto Boehme	25 00
30	851	Maintenance	Janitor	A. Zorazil	20 00
30	852	Maintenance	Drummer	J. R. Fisk	20 00
30	853	Salaries	Foreman farm	J. H. Alsworth	66 66
30	854	Medical attendance	Surgeons Salary	J. D. Read	100 00
30	855	Salaries	Assistant professor of agriculture	J. F. Duggan	60 00
30	856	Salaries	Assistant professor of mechanics	F. E. Giesecke	60 00
30	857	Salaries	Foreman of shops	A. Harbers	75 00
30	858	Maintenance	Stewards salary	B. Sbisa	145 24
30	859	Salaries	Assistant professor in English	W. B. Philpott	60 00
30	860	Salaries	Assistant professor in chemistry and physics	D. Adriance	60 00
30	861	Salaries	Assistant professor in mathematics	R. F Smith	90 00
30	862	Agricultural Department	Labor	J. H. Alsworth	15 95

EXHIBIT B—continued

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. April 2	863	Expense	Postage stamps	J. F. Stokeley	$25 63
2	864	Expense	Stationery	Clark & Courts	44 35
2	865	Creamery	Hardware	W. Koppe	1 25
2	866	Expense	Stationery	W. H. Webb	40
2	867	Maintenance	Gasoline	Waters Pierce Oil Co.	169 68
2	868	Maintenance	Groceries	Carson, Sewall & Co.	189 16
2	869	Agricultural Department	Lumber	Garth & Nash	12 97
2	870	Chemical Department	Supplies	G. W. Norrell	60
2	871	Mechanical Department	Lumber	Garth & Nash	1 44
2	872	Maintenance	Groceries	J. W. English	6 48
3	873	Creamery	Labor	Peter Winter	43 25
4	874	Expense	Hardware	W. Koppe	2 15
4	875	Maintenance	Beef	W. C. Boyett	290 05
9	876	Agricultural Department	Labor	J. H. Alsworth	41 80
9	877	Agricultural Department	Labor	H. Ness	13 65
9	878	Bookstore	Express on books	Wells, Fargo & Co	3 00
9	879	Mathematical Department	Freight	Wells, Fargo & Co	3 00
10	880	Maintenance	Groceries and servants	B. Sbisa	469 12
10	881	Maintenance	Freight	Wells, Fargo & Co	43 00
12	882	Maintenance	Washing	Houston Steam Laundry	124 60
11	883	Expense	Traveling expenses	L. L. Foster	9 70
13	884	Hospital	Repairs	Garth & Nash	54 00
13	885	Farm house	Repairs	Garth & Nash	39 00
14	886	Creamery	Contractor	Garth & Nash	80 00
14	887	Propagating house	Contractor	Garth & Nash	423 60
14	888	Repairs	Servants house	Garth & Nash	232 60
14	889	Farm house	Servants house	Garth & Nash	165 00
14	890	Agricultural Department	Bran	Texas Mill and Elevator Co.	169 05
14	891	Agricultural Department	Labor	J. H. Alsworth	13 49
16	892	Bookstore	Books	B. Westerman & Co	81 92
16	893	Library	Books	B. Westerman & Co.	42 63
16	894	Maintenance	Flour	Texas Mill and Elevator Co.	105 08
16	895	Bookstore	Books	F. A. Tulley	6 30
20	896	Chemical Department	Hardware	J. S. Brown Hardware Co.	12 83
20	897	Mechanical Department	Hardware	J. S. Brown Hardware Co.	4 13
21	898	Repairs	Hardware	J. S. Brown Hardware Co.	19 17
21	899	Agricultural Department	Labor	J. H. Alsworth	14 61

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. April 21	900	Horticultural Department	Labor	Jno. P. Hafte	$2 25
... 23	901	Agricultural Department	Labor	J. H. Alsworth	11 25
... 23	902	Printing	Printing reports	Hutchings Printing Co.	13 00
... 23	903	Repairs	Repairs to furniture	Smith Davis Manufacturing Co	46 52
... 23	904	Maintenance	Groceries	J. W. English	13 66
... 23	905	Maintenance	Supplies	J. S. Wyse	1 65
... 23	906	Medical attendance	Hospital steward	J. H Suber	30 00
... 23	907	Maintenance	Oil	Waters Pierce Oil Co.	18 00
... 23	908	Maintenance	Groceries	Carson, Sewall & Co	44 69
... 23	909	Agricultural Department	Labor	Jos. Gerominski	2 75
... 23	910	Horticultural Department	Labor	Jos. Gerominski	2 25
... 30	911	Calvin E. Martin	Refunded	Calvin E. Martin	15 00
... 30	912	Chas. E. Martin	Refunded	Chas. E. Martin	15 00
... 30	913	J. P. DeBat	Refunded	J. P. DeBat	15 00
... 30	914	J. Q. Allen	Refunded	J. Q. Allen	15 00
... 30	915	Cancelled			
... 30	916	Maintenance	Janitor	Otto Boehm	25 00
... 30	917	Maintenance	Janitor	Anton Zorazil	20 00
... 30	918	Maintenance	Janitor	Jesse Parks	20 00
... 30	919	Maintenance	Salary of steward	B. Sbisa	145 24
... 30	920	Maintenance	Salary of musician	J. R. Fisk	20 00
... 30	921	Horticultural Department	Labor	Geo. Stilz	18 00
... 30	922	Medical attendance	Surgeon's salary	J. D. Read	100 00
... 30	923	Salaries	Assistant professor chemistry and physics	D. Adriance	60 00
... 30	924	Salaries	Foreman of farm	J. H. Alsworth	66 66
... 30	925	Salaries	Assistant professor in mechanics	F. E. Geisecke	60 00
... 30	926	Salaries	Assistant professor English and history	W. B. Philpott	60 00
... 30	927	Salaries	Assistant professor agriculture	T. F. Duggan	60 00
... 30	928	Salaries	Foreman shop	A. Harbers	75 00
... 30	929	Salaries	Gardener	G. E. Eberspocher	33 33
... 30	930	Salaries	Assistant professor mathematics	R. F. Smith	90 00
... 30	931	Expense	Bookkeeper	G. A. Rogers	16 67
... 30	932	Maintenance	Freight	Houston and Texas Central Ry.	1 29
... 30	933	Engineering Department	Apparatus	Jas. W. Queen & Co.	85 48
... 30	934	Cisterns	Pump	J. I. Brown Hardware Co.	12 31
... 30	935	Bookstore	Books	D. Van Nostrand	33 60
... 30	936	Mechanical Department	Machinery	The Gardner Gov. Co	15 29

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.		No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.						
April	30	937	Maintenance	Flour	Texas Mill and Elevator Co.	$70 03
...	30	938	Expense	Postoffice box rent	J. Q. Tabor	1 00
...	30	939	Repairs		Jas. Bute	7 45
...	30	940	Maintenance	Groceries	Carson, Sewall & Co.	241 54
...	30	941	Horticultural Department	Plants	Chas. Elsey	2 00
...	30	942	Agricultural Department	Repairs to implements	A. Oswald	2 95
...	30	943	Agricultural Department	Repairs to implements	Willie Wooten	4 75
...	30	944	Agricultural Department	Supplies	Garth's new gin and mill	10 15
...	30	945	Military Department	Supplies	Garth & Nash	1 05
...	30	946	Mechanical Department	Lumber	Garth & Nash	2 23
...	30	947	Engineering and drawing department	Supplies	G. W. Norrell	35
...	30	948	Repairs	Supplies	G. W. Norrell	60
...	30	949	Chemical Department	Supplies	G. W. Norrell	50
...	30	950	Horticultural Department	Hardware	W. Koppe	3 40
...	30	951	Agricultural Department	Hardware	W. Koppe	40 45
May	2	952	Agricultural Department	Labor	Mat Williams	3 00
...	2	953	Expense	Stationery	L. L. McInnis	38 00
...	3	954	Profft and Loss		L. L. McInnis, secretary	88 00
...	3	955	Agricultural Department	Labor	H. Ness	12 50
...	3	956	Maintenance	Supplies	J. S. Wyse	11 37
...	3	957	Agricultural Department	Labor	J. H. Alsworth	53 00
...	4	958	Agricultural Department	Labor	J. H. Alsworth	15 10
...	4	959	Maintenance	Beef	W. C. Boyett	213 20
...	4	960	Expense	Postage	W. C. Boyett	17 00
...	4	961	Maintenance	Beef	W. C. Boyett	152 91
...	4	962	Maintenance	Washing	Houston Steam laundry	123 90
...	4	963	Horticultural Department	Labor	Jim Jefferson	2 60
...	5	964	Agricultural Department	Labor	J. H. Alsworth	14 50
...	5	965	Medical attendance	Hospital janitor	Louis Parks	12 00
...	7	966	Horticultural department	Labor	Willis Nichols	3 75
...	7	967	Military Department	Freight	Houston and Texas Central Ry.	86
...	7	968	Maintenance	Freight	Wells Fargo Express Company	38 40
...	7	969	Bookstore	Freight	Wells Fargo Express Company	2 00
...	7	970	Expense	Freight	Wells Fargo Express Company	80
...	7	971	Mechanical Department	Freight	Wells Fargo Express Company	35
...	7	972	J. T. Blessing	Refunded	J. T. Blessing	15 00
...	7	973	Dan Cushing	Refunded	Dan Cushing	15 00

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. May 7	974	Maintenance	Groceries	B. Sbisa	$518 32
.. 8	975	Expense	Exchange	First National Bank	52
.. 8	976	Expense	Stationery	G. W. Norrell	4 85
.. 8	977	Maintenance	Ice	A. B. ice depot	18 29
.. 8	978	W. W. Duncan	Refunded	W. W. Duncan	15 00
.. 8	979	Expense	Lock	Miller Lock Co.	5 00
.. 8	980	Expense	Two instruments one year	Erie Telephone & Telegraph Co.	60 00
.. 8	981	Horticultural Department	Labor	L. Erwin	3 00
.. 8	982	Agricultural Department	Labor	Andrew Dickson	6 70
.. 8	983	Agricultural Department	Labor	Geo. Deaton	5 00
.. 8	984	Propagating house	Labor	Geo. Deaton	6 25
.. 8	985	Printing		Central Texas Publishing Co.	3 00
.. 8	986	Bookstore	Supplies	Central Texas Publishing Co.	4 00
.. 8	987	Agricultural Department	Agricultural implements	Calvin W. Alsworth	4 40
.. 8	988	Propagating house	Lumber	Garth & Nash	3 42
.. 8	989	Agricultural Department	Lumber	Garth & Nash	7 50
.. 8	990	Maintenance	Supplies	Webb Bros	2 05
.. 8	991	Maintenance	Supplies	J. W. English	3 20
.. 8	992	Maintenance	Groceries	Carson, Sewall & Co.	65 10
.. 8	993	Military Department	Leather	Hanway & Son	1 50
.. 8	994	Agricultural Department	Hardware	W. Koppe	1 85
.. 8	995	Horticultural Department	Implements	L. T. Fuller	9 50
.. 8	996	Horticultural Department	Repairs to implements	A. Oswald	1 25
.. 8	997	Horticultural Department	Students' labor	G. A. Rogers	4 00
.. 8	998	Mechanical Department	Hardware	W. Koppe	1 86
.. 8	999	Mechanical Department	Lumber	Garth & Nash	2 50
.. 8	1000	Repairs	Lumber	Garth & Nash	1 31
.. 8	1001	Smith shop	Forges	B. F. Sturtevant	190 21
.. 8	1002	Mechanical Department	Hardware	L. M. Rumsey Manufactur'g Co.	4 65
.. 8	1003	Mechanical Department	Hardware	Geo. M. Dilley & Son.	1 75
.. 8	1004	Maintenance	Supplies	W. Koppe.	90
.. 8	1005	Repairs	Lumber	Garth, Nash & Robinson.	11 25
.. 8	1006	Horticultural Department	Hardware	J. S. Brown Hardware Co.	11 83
.. 8	1007	Maintenance	Hardware	J. S. Brown Hardware Co.	9 72
.. 8	1008	Medical attendance	Hospital stewart	J. H. Suber	30 00
.. 8	1009	Creamery	Freight	Houston and Texas Central Ry	16 38
.. 8	1010	Expense	Freight on safe	Houston and Texas Central Ry.	49 76

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.					
May 8	1011	Expense	Freight	Houston and Texas Central Ry.	$1 30
.. 8	1012	Expense	Freight	Houston and Texas Central Ry.	25 00
.. 8	1013	Creamery	Machinery for creamery	Cornish, Curtis & Co.	114 43
.. 8	1014	Agricultural Department	Labor.	J. H. Alsworth	23 82
.. 8	1015	Expense	Labor	W. Williams	22 39
.. 8	1016	Agricultural Department	Labor	J. H. Alsworth	32 60
.. 8	1017	Horticultural Department	Labor	W. Nichols	6 75
.. 8	1018	Maintenance	Janitor	Otto Boehme	25 00
.. 21	1019	Maintenance	Janitor	A. Zorazil	20 00
.. 21	1020	Maintenance	Janitor	Jesse Parks	20 00
.. 21	1021	Maintenance	Stewart's salary	B. Sbisa	145 24
.. 21	1022	Maintenance	Drummer	J. R. Fisk	20 00
.. 21	1023	Horticultural Department	Laborer	Geo. Stilz	22 00
.. 21	1024	Medical attendance	Surgeon's salary	J. D. Read	100 00
.. 21	1025	Salaries	Assistant Prof. of chemistry	D. Adriance	60 00
.. 21	1026	Salaries	Foreman farm	J. H. Alsworth	66 66
.. 21	1027	Salaries	Assistant Prof. of mechanics	F. E. Geisecke	60 00
.. 21	1028	Salaries	Assistant Prof. of English	W. B. Philpott	60 00
.. 21	1029	Salaries	Assistant Prof. of agriculture	J. F. Duggan	60 00
.. 21	1030	Salaries	Foreman shop	A. Harbers	75 00
.. 21	1031	Salaries	Gardener	G. E. Eberspocher	33 33
.. 21	1032	Expense	Bookkeeper	G. A. Rogers	16 67
.. 21	1033	Salaries	Assistant professor in mathematics.	R. F. Smith	90 00
. 21	1034	Mechanical Department	Supplies	Garth & Nash.	1 33
. 21	1035	Mechanical Department	Supplies	Straight Line Eng. Co	3 50
.. 21	1036	Mechanical Department	Supplies	G. W. Norrell.	3 50
.. 21	1037	Maintenance	Groceries	Carson, Sewall & Co.	66 32
. 21	1038	Maintenance	Oil	Waters Pierce Oil Co.	1 50
. 21	1039	Salaries	Agent board	T. M. Scott.	125 00
. 21	1040	Printing	Stationery	L. L. McInnis	9 00
.. 21	1041	Printing	Blanks	Clarke & Courts	7 95
.. 21	1042	Bookstore	Blanks	Clarke & Courts	5 25
.. 21	1043	Agricultural Department	Repairs to farming implements	Willie Wooten	6 50
.. 21	1044	Agricultural Department	Hardware	W. Koppe	1 80
. 21	1045	Mechanical Department	Supplies	Cleveland Drill Co.	12 46
.. 21	1046	Repairs	Hardware	Ripley & Bronson	1 24
.. 21	1047	Agricultural Department	Implements.	Keating Imp. and M'f'g Co.	65 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. May 21	1048	Repairs	Lumber	Garth & Nash	$8 38
.. 21	1049	Expense	Postage	W. C. Boyett	22 00
.. 21	1050	Agricultural Department	Supplies	Hanway & Son	3 50
.. 21	1051	Agricultural Department	Supplies	J. W. English	6 60
.. 21	1052	Agricultural Department	Repairs to implements	Willie Wooten	16 20
.. 21	1053	Agricultural Department	Labor	H. Ness	11 40
.. 21	1054	Agricultural Department	Labor	J. Harrison	4 90
.. 21	1055	Smith shop	Hardware	W. Koppe	1 52
.. 21	1056	Agricultural Department	Repairs	A. Oswald	22 85
.. 21	1057	Agricultural Department	Labor	J. H. Alsworth	43 65
.. 21	1058	Maintenance	Beef	W. C. Boyett	177 49
.. 21	1059	Maintenance	Supplies and servants	B. Sbisa	432 89
.. 21	1060	Maintenance	Supplies and servants	J. W. English	25
.. 21	1061	Maintenance	Ice	A. B. ice depot	20 79
.. 21	1062	Printing	Blanks	Clarke & Courts	12 75
.. 21	1063	Horticultural Department	Repairs to implements	A. Oswald	30
.. 21	1064	Agricultural Department	Labor	J. H. Alsworth	9 70
.. 21	1065	Smith shop	Labor	L. E. Weeden	18 55
.. 21	1066	Maintenance	Oil	Waters Pierce Oil Co.	5 81
.. 21	1067	Maintenance	Washing	Houston Steam Laundry	162 40
.. 21	1068	Maintenance	Flour	Texas Mill and Elevator Co.	25 50

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REPORT

OF THE

AGRICULTURAL AND MECHANICAL COLLEGE

OF TEXAS,

LOCATED AT COLLEGE STATION, BRAZOS COUNTY.

AUSTIN:
SMITH, HICKS & JONES, STATE PRINTERS.
1889.

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REPORT OF THE BOARD OF DIRECTORS.

To His Excellency L. S. Ross, Governor of Texas:

The Board of Directors of the Agricultural and Mechanical College of Texas have the honor to submit to you a report of the present condition of the institution under their charge, and of its management since their last biennial report.

Two years ago, Messrs. W. R. Cavitt, T. M. Scott, J. S. Garrison, Geo. M. Dilley and C. C. Garrett composed the Board. Col. Scott, who had been associated with the management of the College with only a short interval ever since its organization, resigned in January, 1887, to accept the position of agent of the Board, the duties of which he is now acceptably discharging. Col. A. J. Rose was appointed in his place. The term of office of the members comprising the Board expired in April, 1887, and they were all reappointed by your Excellency. By an act of the Twentieth Legislature the Commissioner of Agriculture was made *ex officio* a member of the Board, his duties to begin when the first vacancy occurred. Hon. J. G. Garrison resigned in October, 1887, when Hon. L. L. Foster, the incumbent Commissioner of Agriculture, became a member by virtue of his office. As it is now constituted the Board is composed of the following members: W. R. Cavitt, Geo. M. Dilley, C. C. Garrett, A. J. Rose and L. L. Foster.

It is with sorrow that we note the death of Prof. H. H. Dinwiddie, which occurred in December, 1887. He had been Chairman of the Faculty since 1883, and was a faithful and efficient officer. In his death the State has sustained the loss of a valuable citizen, and an accomplished scholar and teacher. Prof. Louis L. McInnis was elected Chairman of the Faculty in his stead.

Steady advancement has been made in all the departments of the College during the past two years. Buildings have been erected and the facilities of the institution enlarged and extended by better equipment, and the addition of new departments. Your careful attention is invited to the reports of the several officers and professors accompanying this report for a detailed statement of the improvements and additions, as well as the present condition of the several academic departments.

The care of the sick has been better provided for by the erection of a hospital and surgeon's residence, and two brick dormitories have been built which will accommodate about seventy-five students each. The building of the dormitories was rendered imperative by the increasing and pressing demand made for the use of all the rooms in the main academic building for class rooms, offices, laboratories, museum, library and other academic purposes, as well as by a constantly increasing attendance of students. An assembly hall, or chapel, has been contracted for and will soon be in course of construction. The necessity of a place where the corps of cadets could be assembled in a body for chapel exercises, lectures and addresses, to say nothing of a suitable hall for all commencement and other public exercises, had been felt ever since the organization of the College. The chapel now in use is in the fourth story uf the main building, not easily accessible and in every way unsuitable, as well as being in demand as a class room for instruction in drawing. Many other improvements have been made, including two professors' cottages, creamery, barns, etc.

It has been and is the policy of the Board to make progress, not in an uncertain and undefined way, but to keep step with the age in which we live, and in order to do so it is necessary first to catch up. This is not done merely by the expenditure of money, but it involves the expenditure of money. By economy in the use of the resources of the College, and with the small additional appropriation of the Twentieth Legislature at its regular session, the Board was enabled to expend in permanent improvements, prior to the appropriation made by the same Legislature at its called session, no less a sum than $17,943.83. These were the first dormitory, Pfeuffer hall, the hospital, house for foreman of farm, and other minor improvements. The report of the Chairman of the Faculty will give a statement of the estimated cost of improvements out of the appropriation made by the Twentieth Legislature at its called session.

During these two years five departments have been added to the College, to-wit: Veterinary science, horticulture and botany, drawing, civil engineering and physics and experimental agriculture, the last mentioned being in connection with the Experiment Station established by the bounty of the federal government.. Heretofore some general knowledge of veterinary science had been taught in the department of agriculture, but now this branch is being fully developed, and it is hoped that the development may be of practical use to the stock-raiser of the State, in connection with a State Veterinary Department and Veterinarian. A quarantine against contagious diseases of animals and an intelligent intervention of the authority of the State for the suppression of such infectious diseases as glanders, etc., might well be the subject of legislative thought and action. The chair of horticulture and botany, is also an outgrowth of the agricultural department, and its importance need not be dwelt upon. Mechanical drawing had been taught in connection with the general subject of mechanics; but the importance of free hand drawing, both to the mechanic and the agricultural student, became so evident and necessary that the Board, only following in the wake of other colleges of the same kind, made drawing a separate department, and provided for instruction in both mechanical and free hand drawing. The department of civil engineering and physics is taken from the department of mechanics and that of chemistry, with which the physics had before been associated.

Not only have these new departments been added, but the others have been improved. The establishment of the creamery in connection with the agricultural department is an important illustration of the knowledge of dairying, and its influence is already being felt throughout the State. A forge shop has been added to the mechanical department for instruction in the very useful art of blacksmithing. All these additions will require additional expense; and we feel confident that it will never be the policy of the State to take a step backwards, or to fall in the rear of the procession in the great advance of industrial education.

Extensive repairs were made during last summer of all the College buildings, and the several departments further equipped. New and valuable machines and tools have been purchased for the shops, and the department of civil engineering and physics have been supplied with a testing machine, which is not only useful for the instruction of the students, but may be of public benefit in the testing of building material.

Chapel and other religious exercises have always been usual with institutions of learning, situated even in the midst of cities and towns where churches are accessible. Its isolated condition, five miles from the town of Bryan, renders such exercises more desirable at the College. Ministers of the several churches in Bryan have heretofore kindly gone out to the College and held religious exercises on Sunday afternoon, and would perhaps continue to do so, though with considerable inconvenience to themselves, but the influence of a resident chaplain over the students would be much better. The corps ought to assemble at least once each day. There should be some sort of religious exercises every morning in the chapel, and services on Sunday. The moral influence of such exercises can not be denied. A Chaplain has been provided for by the Board, and in addition to his other duties he will be required to teach not exceeding two hours a day. He is also *ex officio* librarian. His duties commence January 1, 1889.

The Experiment Station, provided for by an appropriation by the Federal Congress. has been put into operation, and is managed under the supervision of the Board by a counsel composed of the Director of the Station, the Chairman of the Faculty and the agent of the Board of Directors. With proper management it will be a great auxiliary in the practical work of the College, giving practical effect to the science of agriculture as taught in the daily lectures by actual experiments in the solution of questions raised by instruction. A full and rapid detail of the report of the Station will be made to your Excellency on February 1 next, as required by the act of Congress making the appropriation. With time and co-operation on the part of the farmers of the State, the Experiment Station will become a valuable aid to the farming and stockraising interests of the State. In the previous history of the college, it has been more difficult to give practical effect to the studies in agriculture than in mechanics. The shops, with their immediate results, have been always more inviting to the students than the routine of growing crops. But with the attention of the student directed to single and practical experiments of interest, not only in growing crops, but also in feeding cattle, experiments in horticulture, and in the investigation of diseases of plants and animals, his interest will increase, and the effect has already been seen in the increased per cent of the students who take the agricultural course. The establishment of the experiment stations at the agricultural and mechanical colleges throughout the United States was clearly intended to be of practical benefit to the colleges, and while they should not be merged into the colleges, they should certainly be so managed as to aid the agricultural department and develop it into the highest degree or excellence attainable.

By reference to the report of the Chairman of the Faculty it will be seen that something more than the usual appropriation of $15,000 per annum is necessary for the liberal maintenance of the college on the improved basis upon which it is being operated. It is also suggested by the Board that the contingent fund of the college, which accrues from profits in maintenance of students, and which with the increased attendance now amounts to nearly $4,000 annually, should be reduced by a reduction of cost to the students, thus placing the facilities of the college within the reach of more people. An annual appropriation of $20,000 above the interest received from its endowment fund would at present maintain the college and enable the Board to make some reduction in the cost to students. It is further suggested that there should be an annual appropriation of some amount for improvements and repairs. The present large plant of buildings will be in continual need of repairs, and improvements in the various departments are constantly suggesting themselves.

It is hoped that the Legislature will make provision for the building of a suitable chemical laboratory. There are many cogent reasons why it should be done. There is scarcely an agricultural college in the United States without one. The report of the professor of chemistry and minerology setting forth the necessity of a laboratory is referred to. It will cost about $10,000. A further appropriation of $7500 is necessary to complete the assembly hall and chapel. An appropriation of $20,000 was made by the last Legislature at its called session, with which to build a dormitory and an assembly hall. They could not be erected in the same building and the appropriation was insufficient for the two, so to save the appropriation the Board has had a new brick dormitory built and has let the contract for the assembly hall with the provision that the contractor shall stop work when directed to do so, but it will require about $7500, as above stated, to complete it. When finished it will be an ornament to the grounds and in keeping with the other improvements made by the State.

In submitting their estimates for the information of the Legislature the members of the Board do not feel that it is a part of their functions merely to provide methods in which money may be expended, but that they should point out with fidelity to the trust reposed in them the means by which it can be, in their judgment, best administered. They feel that your Excellency and each member of the Legislature have the same interest in the success of the College that they have, the only difference being that theirs is of a more special nature. It has been usual for the Legislature to appropriate for the maintenance of this College, as a branch of the University, a portion of the University fund. It is the only part of the University, however, that can be maintained under the Constitution by appropriations from the general revenue, and, while the right of the Agricultural and Mechanical College to have a fair proportion of the available University fund appropriated to its maintenance is unquestioned, still in view of the present straitened financial condition of the University proper, this College will not urge any specific appropriation, leaving it to the wisdom of your Excellency and the Legislature to yield to the University and all its branches a support that will foster and build up the cause of higher education in this State, literary and classical, professional and industrial. Attention is respectfully invited, however, to Revised Statutes, article 3689, which provides for the manner of the payment of the actual expenses of the members of the Board of Directors. An appropriation of a sufficient amount of the University fund should be made for that purpose. It is suggested that $500, or so much thereof as may be necessary, should be appropriated.

In order to bring the College into a closer relation with the people it is suggested that your Excellency might appoint a board of visitors with the request to them to visit the same at such time during the year as they may deem proper, to be present at the final exercises in June, and to make a report to the Governor of their impressions of the College, its wants, etc.

In conclusion the Board take pleasure in testifying to the faithful and competent manner in which the professors and instructors have uniformly discharged their duties, and to the general good deportment and studious character of the corps of cadets.

Respectfully submitted,

C. C. Garrett,

President Board of Directors A. and M. College of Texas.

December 15, 1888.

REPORT OF THE CHAIRMAN OF THE FACULTY.

December 1, 1888.

Hon. C. C. Garrett, President Board of Directors Agricultural and Mechanical College of Texas:

Sir:—The laws of this College impose the following duty on the Chairman of the Faculty:

10. It shall be his duty to carry out the provisions of the following section from the law of Congress:

Section 5. IV. An annual report shall be made regarding the progress of each College, recording any improvements and experiments made, with their costs and results, and such other matters including State industrial and economical statistics as may be supposed useful, one copy of which shall be transmitted by mail free, by each, to all the other Colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

In compliance with that duty I have the honor to submit the following report, which covers the years 1887–88. The continued growth of the College since the last biennial report has been such as greatly to encourage the friends of industrial education in the State.

This success of the College is due to the fact that it is held strictly to its work, of promoting industrial education, and that it is ever kept prominent that its leading object is, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.

ACADEMIC STATISTICS.

The increased scope of instruction in agricultural and mechanical branches inaugurated in September, 1887, led to the creation of the chairs of civil engineering and physics, and of horticulture and botany in June, 1887, and the chairs of veterinary science and of drawing in June, 1888. These additional chairs have enabled the College to give more attention to these important branches, and to offer a more diversified course of study, thus greatly increasing its capacity to impart a sound industrial education.

REGULAR COURSES OF STUDY.

There are two regular courses of study and practice leading to degrees and extending through four years each. They are identical for the first year, thus giving the student the advantage of elementary training in subjects that are of equal importance to every one, and affording opportunity for intelligent choice between the courses as continued separately through the three succeeding years. In the last year, or first class, there is a still further specialization by which the student may, in the agricultural course, vary his studies with reference to obtaining either of two degrees, that is, Bachelor of Science (B. S.), or Bachelor of Scientific Agriculture (B. S. A.) In the mechanical course a similar specialization is provided for, by which the student is given the choice between the degrees of Bachelor of Civil Engineering (B. C. E.) and Bachelor of Mechanical Engineering (B. M. E.)

All regular students must pursue either the agricultural or the mechanical course, and there is no course of instruction which is not industrial.

The Latin language is optional and may be studied by any student who may have time for such extra study. German and Spanish are also optional except as is shown in the curricula and may be studied as subjects outside of the regular courses. There is no charge for any optional study.

In view of the great practical importance of the German and Spanish languages for business purposes in our State, special attention is given to these. A large number of the students are of German descent, and speak the language fluently.

By association with these, young men may have continual practice conversation out of the class room as well as in it.

AGRICULTURAL COURSE.

FIRST YEAR—FOURTH CLASS.

Hours per week.		*Fall Term.*
5	MATHEMATICS	Arithmetic (Robinson).
5	ENGLISH	Elementary English (Murray), Composition and Declamation.
3	STOCK LECTURES	Domestic Animals.
2	HORTICULTURE	Introduction to Horticulture; Lectures.
4	SHOP	Carpentry Work.
4	DRAWING	Free Hand.
5	DRILL	Infantry.

Winter Term.

Hours per week.		*Winter Term.*
5	MATHEMATICS	Arithmetic, Algebra (Schuylers), begun.
5	ENGLISH	Advanced Lessons in English (Murray), Composition and Declamation.
1	STOCK LECTURES	Domestic Animals.
1	AGRICULTURE	Elementary Agriculture (Gulley).
3	ZOOLOGY	Vertebrate Zoology.
4	SHOP	Carpentry work.
4	DRAWING	Free Hand.

FIRST YEAR—FOURTH CLASS—continued.

Spring Term.

Hours per week.		
5	MATHEMATICS	Algebra (Schuyler).
5	ENGLISH	Advanced Lessons (Murray), Composition and Declamation.
4	BOTANY	Introductory Botany (Wood).
1	AGRICULTURE	Elementary Agriculture (Gulley).
6	PRACTICE	Shop, 2 hours; Agriculture, 2 do; Horticulture, 2 do
2	DRAWING	Free Hand.
3	DRILL	Infantry.

SECOND YEAR—THIRD CLASS.

Fall Term.

5	MATHEMATICS	Algebra (Schuyler).
2	AGRICULTURE	Dairying.
3	HORTICULTURE	Fruit Culture.
4	ENGLISH	Advanced Grammar and Elements of Rhetoric; Compositions and Declamations.
3	PHYSICS	Peck's Ganot.
4	PRACTICE	Horticultural.
4	DRAWING	Free Hand.
5	DRILL	Infantry.

Winter Term.

5	MATHEMATICS	Algebra finished; Geometry.
3	AGRICULTURE	Dairying and Milk Stock.
3	HORTICULTURE	Vegetable Culture.
4	ENGLISH	Advanced Grammar and Elements of Rhetoric completed; United States History begun; Composisition and Declamation.
3	PHYSICS	Peck's Ganot.
6	PRACTICE	Agriculture, 4 hours, horticulture, 2 hours.
2	DRAWING	Free Hand.

Spring Term.

5	MATHEMATICS	Geometry (Schuyler).
3	HORTICULTURE	Entomology.
2	AGRICULTURE	Stock Breeding; Lectures.
4	ENGLISH	United States History completed; Composition and Declamation.
3	PHYSICS	Peck's Ganot.
3	DRILL	Infantry Drill.
6	PRACTICE	Agriculture, 4 hours; Horticulture, 2 hours.
2	DRAWING	Free Hand.

THIRD YEAR—SECOND CLASS.

Fall Term.

5	MATHEMATICS	Geometry finished; Trigonometry (Schuyler).
4	CHEMISTRY	Inorganic Chemistry (Reusen).
2	HORTICULTURE	Grasses and composital.
2	AGRICULTURE	Cattle Feeding (Armsby).
2	ENGLISH	Essentials of English (Welsh); Essays.
3	DRILL	Infanty.
8	PRACTICE	Agricultural practice, 6 hours; Experimental Chemistry, 2 hours.
2	DRAWING	Free Hand.

THIRD YEAR—SECOND CLASS—continued.

Winter Term.

Hours per week.		
2	LANGUAGES	Spanish or German; Syntax begun.
4	CHEMISTRY	Inorganic completed.
1	VETERINARY SCIENCE	
4	HORTICULTURE	Economic and Systematic Botany; Lectures.
2	ENGLISH	Essentials of English (finished); Outlines of General History (Swinton's) begun; Essays.
2	AGRICULTURE	Cattle Feeding.
2	BOOKKEEPING	Mussleman's Bookkeeping.
2	TACTICS	Upton's Infantry Tactics U. S. A. Reg.
8	PRACTICE	Agricultural practice, 2 hours; Chemical, 6 hours.
2	DRAWING	Free Hand.

Spring Term.

Hours per week.		
2	METEOROLOGY	
2	AGRICULTURE	Arboriculture and Forestry (Hough).
4	CHEMISTRY	Chemistry of the Carbon Compounds.
1	VETERINARY SCIENCE	
2	SURVEYING	
2	AGRICULTURE	Cattle Feeding.
2	ENGLISH	Outlines of General History completed; Essays
2	LANGUAGES	Grammar finished; Reading.
3	DRILL	Artillery.
2	DRAWING	Free Hand.
2	BOOKKEEPING	
8	PRACTICE	Chemical, 6 hours; forestry, 2 hours.

FOURTH YEAR—FIRST CLASS.

FOR THE DEGREE OF BACHELOR OF SCIENTIFIC AGRICULTURE.

Fall Term.

Hours per week.		
3	CHEMISTRY	Agricultural Chemistry; Lectures.
2	GEOLOGY	Winchell's.
3	AGRICULTURE	Cattle Feeding, Fertilizers and Drainage.
2	ENGLISH	English Literature (begun); Essays.
3	VETERINARY SCIENCE	
2	EXP. AGRICULTURE	
10	PRACTICE	Chemical, 6 hours; Veterinary, 2 hours; Agricultural Experiments, 2 hours.
3	DRILL	Infantry.

Winter Term.

Hours per week.		
2	MATHEMATICS	Mechanics, Elementary (Wood's).
2	BOTANY	Vegetables, Physiology and Histology.
2	GEOLOGY	Winchell's.
4	AGRICULTURE	Fertilizers and Drainage.
3	VETERINARY	
2	ENGLISH	English Literature (completed); Essays.
2	EXP. AGRICULTURE	
1	MILITARY SCIENCE	Lectures.
10	PRACTICE	Chemical, 3 hours; Botanical Labor, 4 hours; Agricultural Experiments, 3 hours.

FOURTH YEAR—FIRST CLASS—continued.

Spring Term.

Hours per week.		
3	MATHEMATICS.	Mechanics (Wood's).
2	AGRICULTURE	Farm Management; Lectures.
1	ENGLISH	Lectures.
2	PHYSIOLOGY	Huxley and Yauman's.
3	VETERINARY	
2	ASTRONOMY	
2	EXP. AGRICULTURE.	
2	GOVERNMENT SCIENCE.	
10	PRACTICE	Chemical, 3 hours; Agricultural Eperiments, 4 hours; Veterinary, 3 hours.
3	DRILL	Infantry Drill; Target Practice.
	GRADUATION THESIS.	

FOURTH YEAR—FIRST CLASS.

For the Degree of Bachelor of Science.

Fall Term.

3	MYCOLOGY	Lectures on Fungi and Plant Diseases in connection Bessey's Botany.
2	GEOLOGY	Winchell's.
3	CHEMISTRY	Agricultural Chemistry; Lectures.
2	ENGLISH	English Literature; Essays.
2	EXP. AGRICULTURE	
3	LANGUAGES	Short Review of Grammar and Reading of Authors.
10	PRACTICE	Chemical, 6 hours; Botanical Labor, 4 hours.
3	DRILL.	Infantry.

Winter Term.

2	MATHEMATICS	Mechanics' Elementary (Wood's).
4	BOTANY	Vegetable Physiology and Histology.
2	GEOLOGY	Winchell's.
2	ENGLISH	English Literature (comp.); Essays.
3	LANGUAGES	Reading continued.
2	EXP. AGRICULTURE	
2	AGRICULTURE	Fertilizers and Drainage.
1	MILITARY SCIENCE	Lectures.
10	PRACTICE	Chemical, 3 hours; Botanical Labor, 4 hours; Entomological Labratory, 3 hours.

Spring Term.

3	MATHEMATICS	Mechanics (Wood's).
4	HORTICULTURE	Floriculture and Landscape Gardening.
2	ENGLISH	English Lectures.
	ASTRONOMY	
3	LANGUAGES	Reading, Composition and Writing Exercises.
2	PHYSIOLOGY	
2	GOVERNMENT SCIENCE.	
10	PRACTICE	Chemical, 3 hours; Experimental Work, 4 hours; Practice in Greenhouse, 3 hours.
3	DRILL	Infantry Drill: Target Practice.
	GRADUATION THESIS.	

MECHANICAL COURSE.

FIRST YEAR—FOURTH CLASS.

Fall Term.

Hours per week.		
5	MATHEMATICS	Arithmetic (Robinson's).
5	ENGLISH	Elementary English (Murray); Composition and Declamation.
3	STOCK LECTURES	Domestic Animals.
2	HORTICULTURE	Introduction to Horticulture; Lectures.
4	SHOP	Carpentry Work.
4	DRAWING	Free Hand.
5	DRILL	Infantry Drill.

Winter Term.

5	MATHEMATICS	Arthmetic (Robinson); Algebra begun (Schuyler).
5	ENGLISH	Advanced Lessons (Murray); Composition and Declamation.
1	STOCK LECTURES	Domestic Animals.
1	AGRICULTURE	Elementary Agriculture (Gulley).
3	ZOOLOGY	Vertebrate Zoology.
4	SHOP	Carpentry Work.
4	DRAWING	Free Hand.

Spring Term.

5	MATHEMATICS	Algebra (Schuyler).
5	ENGLISH	Advanced Lessons (Murray); Composition and Declamation.
4	BOTANY	Introductory Botany (Wood's).
1	AGRICULTURE	Elementary Agriculture (Gulley).
6	PRACTICE	Shop Work, 2 hours; Agricultural Practice, 2 hours; Horticultural Practice, 2 hours.
3	DRILL	Infantry.
2	DRAWING	Free Hand.

SECOND YEAR—THIRD CLASS.

Fall Term.

5	MATHEMATICS	Algebra (Schuyler).
4	MECHANICS	Mechanism.
4	ENGLISH	Advanced Grammar; Elements of Rhetoric; Composition and Declamation.
3	PHYSICS	Peck's Ganot.
4	PRACTICE	Wood Turning, Blacksmithing, Pipe Fitting, etc.
4	DRAWING	Mechanical.
5	DRILL	Infantry.

Winter Term.

5	MATHEMATICS	Algebra finished; Geometry begun.
5	MECHANICS	Mechanism
4	ENGLISH	Advanced Grammar; Elements of Rhetoric; U. S. History (Stephens'); Composition and Declamation.
3	PHYSICS	Peck's Ganot.
4	PRACTICE	Wood Turning; Blacksmithing, Pipe Fitting, etc.
4	DRAWING	Mechanical.

SECOND YEAR—THIRD CLASS—continued.

Spring Term.

Hours per week.		
5	MATHEMATICS	Geometry (Schuyler).
5	MECHANICS	Steam Engine.
4	ENGLISH	U. S. History; Composition and Declamation.
3	PHYSICS	Peck's Ganot.
3	DRILL	Infantry Drill.
4	PRACTICE	Wood Turning; Blacksmithing; Pipe Fitting, Etc.
4	DRAWING	Mechanical.

THIRD YEAR—SECOND CLASS.

Fall Term.

5	MATHEMATICS	Geometry finished; Trigonometry (Schuyler).
4	CHEMISTRY	Inorganic (Rensen).
2	MECHANICS	Steam Engine.
2	ENGINEERING	Graphic Statistics; Lectures.
2	ENGLISH	Essentials of English begun, with Essays.
2	LANGUAGES	Spanish or German Phonetics and Etymology.
3	DRILL	Infantry.
6	PRACTICE	Metal Working.
4	DRAWING	Mechanical Drawing.

Winter Term.

5	MATHEMATICS	Higher Algebra.
4	CHEMISTRY	Inorganic completed.
2	MECHANICS	Steam Engine.
2	ENGLISH	Essentials of English and Outlines of General History (Swinton's).
2	ENGINEERING	Graphic Statistics (concluded); Contracts and Specifications applied to Engineering Materials.
2	LANGUAGES	Syntax finished. Light reading.
2	TACTICS.	Upton's Infantry Tactics U. S. A. Reg.
6	PRACTICE	Metal Working.
4	DRAWING	Mechanical Drawing.

Spring Term.

5	MATHEMATICS	Loomis' Descriptive Geometry.
2	MECHANICS	Boilers.
4	CHEMISTRY	Chemistry of Carbon Compounds.
2	SURVEYING	
2	ENGLISH	Outlines of General History. Essays.
2	LANGUAGES	Grammar finished. Reading.
3	DRILL	Artillery.
6	PRACTICE	Metal Working.
4	DRAWING	Mechanical.

FOURTH YEAR—FIRST CLASS.

FOR THE DEGREE OF BACHELOR OF MECHANICAL ENGINEERING.

Fall Term.

4	MATHEMATICS	Analytical Geometry.
5	MECHANICS	Valve motion and link work.
2	GEOLOGY	Winchell's.
3	LANGUAGES	Short review of Grammar and reading of authors.
3	DRILL	Infantry.
2	ENGLISH	English Literature; Essays.
6	PRACTICE	Higher Machinery.
4	DRAWING	Mechanical.

FOURTH YEAR—FIRST CLASS—continued.

Winter Term.

Hours per week.		
5	MATHEMATICS	Analytical Geometry, 3 hours; Mechanics, 2 hours.
2	GEOLOGY.	Winchell's.
2	ENGLISH.	English Literature (completed); Essays.
5	MECH. ENGINEERING	Indicator work.
2	LANGUAGES.	Reading continued.
1	MILITARY SCIENCE	Lectures.
6	PRACTICE	Higher Machinery.
4	DRAWING	Mechanical.

Spring Term.

3	MATHEMATICS	Mechanics (Wood's).
4	MECHANICAL ENG'NG	Experimental work with steam engines.
1	ENGLISH	Lectures.
2	ASTRONOMY.	
3	LANGUAGES.	Reading, Composition and written exercises.
2	PHYSIOLOGY.	
2	GOVERNM'TAL SCIENCE.	
7	PRACTICE	Chemical, 4 hours; Experimental work, 3 hours.
3	DRAWING	Mechanical.
3	DRILL.	Infantry Drill. Target Practice.
	GRADUATION THESIS.	

FOURTH YEAR—FIRST CLASS.

FOR THE DEGREE OF BACHELOR OF CIVIL ENGINEERING.

Fall Term.

4	MATHEMATICS	Analytical Geometry.
5	CIVIL ENGINEERING	Railroad Engineering; Shunk's Field Engineering.
2	GEOLOGY.	Winchell's.
3	LANGUAGES	Short Review of Grammar and reading of authors.
2	ENGLISH	English Literature; Essays.
4	PRACTICE	Field Practice.
6	DRAWING	Mechanical and Architectural.
3	DRILL.	Infantry.

Winter Term.

6	MATHEMATICS	Analytical Geometry, 3 hours; Mechanics, 3 hours.
2	GEOLOGY	Winchell's.
2	ENGLISH	English Literature, Composition; Essays.
4	ENGINEERING	Shunk's Field Engineering; Bridges and Roofs (Shreve); Lectures on Materials.
3	LANGUAGES	Reading continued.
1	MILITARY SCIENCE	Lectures.
4	PRACTICE	Field and Designing.
6	DRAWING	Mechanical and Architectural.

Spring Term.

3	MATHEMATICS	Mechanics, (Wood's.)
4	CIVIL ENGINERING	Shreve's Bridges and Roofs; Strength of Material.
1	ENGLISH	Lectures.
2	ASTRONOMY	
3	LANGUAGES	Reading, Conversation and Written Exercises.
2	PHYSIOLOGY	
2	GOVERNMENT. SCIENCE.	
7	PRACTICE	Chemical, 4 hours; Designing and Strength of Material [testing machine] 3 hours.
3	DRILL	Infantry Drill and Target Practice.
3	DRAWING	Mechanical and Architectural.
	GRADUATION THESIS.	

POST-ORADUATE COURSES.

The Post-Graduate degree of M. S. (Master of Science) is given to those who have pursued the Post-Graduate studies for two years, and have passed satisfactory examinations thereon and submitted an approved thesis.

It is required for admission to study for this degree that the candidate be a graduate in one of the courses, or pass satisfactory examinations upon subjects embraced in them.

Students for this degree are under the general regulations of the college, but are not subjected to military discipline; they may, however, be required to assist in keeping order in the barracks.

A student desiring to enter for this degree must select his course of study from prescribed subjects. This selection must be submitted to and approved by the Faculty, and no change can be made without approval of Faculty.

The Faculty requires a sufficient number of subjects to give the students full employment.

SPECIAL COURSES.

Each of these courses is intended to be short and eminently practical, and is not open to any student who may wish to enter it merely as a means of getting through with his education in as short a time as possible. They are for mature young men who may desire instruction in the practical application of the principles involved in the occupations to which these courses apply; young men who may have already received sufficient general elementary training to enable them to take up and pursue technical study in these occupations. Admission to the short courses is therefore strictly at the discretion of the Faculty.

Academic requirements for admission are same as for the fourth class, and the student must be eighteen years of age.

These courses will occupy two years, and students showing satisfactory progress will, at the end of that time, receive certificates of proficiency.

Students may enter these courses at any time. Students in these courses have the privilege of pursuing any studies in the regular courses, the selection of studies to be approved by the Faculty.

Special courses in the following subjects are provided: Agriculture, horticulture, dairying, carpentry, blacksmithing, machinery, chemistry, drawing, surveying.

GOVERNMENT OF THE COLLEGE.

The government of the College is vested in a Board of Directors, consisting of five members, appointed by the Governor. Under the Board there are two sets of officers, those constituting the Faculty, and the non-academic officers, who are charged with the management of the various business matters.

BOARD OF DIRECTORS.

C. C. Garrett, Esq., President	Brenham
W. R. Cavitt, Esq	Bryan
Geo. M. Dilley, Esq	Palestine
Major A. J. Rose	Salado
Hon. L. L. Foster, ex-officio Commissioner of Insurance, Statistics, History and Agriculture.	Austin
Louis L. McInnis, ex-officio Secretary	College Station

FACULTY.

Louis L. McInnis, A. M., Chairman	Professor of Mathematics
W. L. Bringhurst, Ph. D., Vice Chairman,	Professor of English and History.
Rudolph Whipprecht	Professor of Languages
R. H. Whitlock, M. E	Professor of Mechanical Engineering
Geo. W. Curtis, M. S. A	Professor of Agriculture
F. A. Gulley, M. S	Professor of Experimental Agriculture
H. H. Harrington, M. S	Professor of Chemistry and Mineralogy
Lt. Guy Carleton, 2d Cavalry, U. S. A.,	Professor of Military Science and Commandant.
Thos. L. Brunk, B. S	Associate Professor Horticulture and Botany
I. H. Kinealy, D. E	Ass't Professor of Civil Engineering and Physics
Mark Francis, V. M. D	Associate Professor of Veterinary Science
Robt. F. Smith	Adjunct Professor of Mathematics
F. E. Giesecke	Instructor in Drawing
W. B. Philpott	Assistant Professor of English and History
D. Adriance	Assistant Professor of Chemistry and Physics
J. F. Duggar, B. S	Assistant Professor of Agriculture
J. F. McKay	Assistant Professor of Horticulture
Paul Braun, B. M. E	Ass't Professor of Mechanical Engineering
A. M. Guenther	Instructor in Blacksmithing

OTHER OFFICERS.

T. M. Scott	Agent of the Board
L. L. McInnis	Ex-officio Secretary
G. A. Rogers	Clerk and Bookkeeper
B. Sbisa	Steward
C. A. Lewis	Foreman of Carpenter Shop
J. H. Alsworth	Foreman of the Farm
G. E. Eberspatcher	Foreman of Garden and Orchard
J. S. Fowlkes, Bryan	Fiscal Agent

It is proper to state in this connection that the Professor of Experimental Agriculture is director of the agricultural experiment station, and that the professors of agriculture, horticulture, chemistry, veterinary science and physics and their several assistants divide their time between the work of the College and the experiment station. This fact should be borne in mind when considering the number in the Faculty, for they must give theoretical and practical instruction to the students, and at the same time carry on the work of agricultural experimentation.

PROFESSOR H. H. DINWIDDIE.

Since the last biennial report the College has suffered a severe loss in the death of Prof. H. H. Dinwiddie, Chairman of the Faculty from 1883 until his death in December, 1887. To his untiring labors and wisely directed devotion to the cause of industrial education, the College is indebted for much of its success. He has left the impress of his intelligent enthusiasm in the cause of agricultural and mechanical education upon the history of this College, for which he labored with such unselfish zeal.

ATTENDANCE.

During the session of '86 and '87, 176 students matriculated. During the session '87 and '88 there was an attendance of 214. One hundred and ninety-five have been enrolled during the present session. During the session of '87 and '88 there were 101 students in the fourth class, which is common to both courses. In the third, second and first classes there were 31 students taking the agricultural course, and 82 the mechanical course. During the present session the enrollment has been 89 in the fourth class, 33 in the agricultural course, 73 in the mechanical course.

VISITING COMMITTEES.

During the summer of '87, by authority of your honorable body, I attended the meetings of the State Horticultural Society, the State Grange of Patrons of Husbandry, and the State Farmers' Alliance. I was cordially received by each of these bodies, and invited each of them to appoint a committee, whose duty should be to visit the College and inspect its workings, that they might report to their several bodies, the representative organizations of our industrial people, as to how far the College was carrying out the objects of its endowment.

During the session of '87 and '88 the College was visited by committees from each of these bodies, and their reports published in the State press were very gratifying to the authorities and friends of the College. In this connection I respectfully recommend that your honorable body renew the recommendation made two years since, requesting the Governor to appoint each year a visiting committee, whose duty shall be to visit the College during each session and report to the Governor.

The letter addressed to His Excellency, Governor Ireland, read as follows:

To His Excellency, John Ireland, Governor of Texas:

Sir—The Board of Directors of State Agricultural and Mechanical College, by unanimous vote, and looking to the best interests of the institute, in order to bring the actual work of the College before the agricultural and mechanical as well as other citizens of the State, respectfully suggest to your Excellency the propriety of the appointment, by the Executive of the State, of five, seven or more persons, eminent in their several callings, as a board of visitors, to attend the annual commencement exercises of the College, for the purpose of inspecting its working, its progress made in teaching, suggesting improvements for the betterment of the institution, and make a report through the Governor to the Legislature, to the end that it may be known if the College is being managed and conducted for the purpose and design for which it was organized, and that His Excellency, the Governor, recommend that an appropriation be made by the next Legislature to pay the expenses of the board of visitors actually incurred in the performance of such service.

Respectfully, your obedient servant,

Louis L. McInnis.
Secretary of Board, etc.

FARMERS' INSTITUTES.

While the primary object of the College should be kept steadily in view, viz.: The practical education of the young men of the State, yet there is no means by which the College can be rendered more immediately useful to the agricultural classes than by holding Farmers' Institutes in different portions of the State. This will bring the professors in direct contact with intelligent and progressive farmers, and will be of mutual advantage. This feature has been inaugurated with marked success in several of the Western and Southern States. I respectfully urge this step as the best means of closely identifying the College with the agricultural people of the State, and to accomplish this end I respectfully recommend that an appropriation be asked for to defray the expenses of holding these institutes.

LABOR FUND.

The regulation of the labor to be required of the students is the most difficult feature in the management of the College. It is the policy of the College to require from six to ten hours per week of practical work from each student and that this work shall be instructive. It is difficult in some departments to distinguish between instructive and non-instructive labor.

The most successful agricultural colleges have, to some extent, solved this problem by providing a labor fund from which students are paid for all productive labor. Student labor must necessarily be expensive, but if the College reaps benefit from the labor, the student should be remunerated for the work done. I beg leave to call attention to the following extract from a recent report of the Board of Trustees of the Mississippi Agricultural College: "We deem it essential that this work be rigorously exacted except in cases of sickness, and we respectfully urge that the Legislature hereafter make a specific appropriation of say seven thousand dollars for each year for student labor, to be used for no other purpose. This labor is not very valuable to the College, but we regard it as of supreme importance that the Board of Trustees be enabled to exact it. As the object of the College is to make intelligent and progressive farmers, we deem it essential that each student should be inured to farm labor." As further evidence that the appropriation of this labor fund is attracting the attention of the friends of agricultural colleges, I would call attention to the following extract from the recent address of the master of the National Grange: "Many of you who are to-day connected with the management of our State universities need no reminder of the constant inquiry, 'is there any opportunity for a boy to perform some kind of labor while at shool to help pay his expenses.' In some States there is a strong effort being made to secure a State appropriation for a labor fund to be used in developing college farms, and so give employment to these same boys and thus enable them to secure a good education. I believe it to be the duty of this order, whose strongest pillar in its superstructure is education, to consider with great care not only this but any practical plan that will enable these institutions founded by our United States government, to make such wise provision as will secure for these boys of limited means and opportunities the advantages of which they are now deprived." I am constantly in receipt of letters from young men in our State who desire to labor in order to defray their College expenses. If the labor fund is provided the State, in addition to enabling deserving young men to acquire a sound practical education, would receive some return in the cultivation of the College farm, garden and orchard, the care of stock, and the improvement and adornment of the campus. It is respectfully submitted that it is much better for the student to assist him by enabling him to help himself than by giving free scholarships, even if the scholarships should always be awarded to the most deserving. I respectfully recommend that the Legislature be asked to make an appropriation for this purpose. As evidence that our students desire this opportunity to work I would state there are now registered in this office more than thirty of our students asking for work.

DEPARTMENTS OF COLLEGE.

DEPARTMENT OF AGRICULTURE.

The facilities for instruction in this, the most important department of the College, have been much increased since the last report by the erection and equipment of a creamery, which is now in successful operation, and by additions to the agricultural implements. In order that the creamery may be more beneficial to the College, as well as to enable the department to give more thorough instruction in the important branch of stock breeding and raising, it is respectfully recommended that an appropriation be asked for to increase the herd of thoroughbred cattle, and to employ a capable foreman of stock. If the college can be made a center of influence for developing the stock and dairying interests, the State will be amply repaid for any reasonable amount expended for this purpose.

DEPARTMENT OF MECHANICAL ENGINEERING.

During the fall of '87 there was erected in this department a forge shop. This was equipped last spring and opened last November, with a competent instructor in blacksmithing in charge. This is an improvement which has been much needed, and it adds very much to the completeness of the mechanical department. With the appropriation made last spring, several lathes, a universal milling machine and many small tools have been added to the equipment of the machine shop, so that for the next two years there will be nothing needed for the machine, blacksmith and carpenter shops, except the fund to meet current expenses, including purchase of materials and supplies. A small but well equipped foundry would add very much to the facilities of this most useful department.

We can now offer our students a good course in carpentry, blacksmithing and machine work, but we have no means of imparting instruction in casting and moulding. With the foundry the mechanical department would be reasonably complete, but we cannot expect to take rank with the best mechanical schools without this important equipment.

DEPARTMENT OF HORTICULTURE AND BOTANY.

This department was established in June, 1887, as indicated in the last biennial report, and has already made commendable progress. During the winter of 1887 there was erected a small propagating and green house; the College orchard has been improved and is now in fair condition. This department is expected to supply the mess hall with vegetables and fruit and should be so developed as to supply all that is needed for the use of the students. If one has enjoyed a visit to the display of Texas Horticultural Society at Tyler during the past three summers, no argument is needed to convince him that Texas is destined to become a great fruit and vegetable producing State, and that therefore the proper development of the horticultural department of this college will amply repay the State for money expended. There is need of many improvements to place this department in the state of efficiency that its importance justifies, but as a slow but steady growth is best, I respectfully recommend that the estimates for the next two years include only those improvements that are necessary to give the department sufficient efficiency to impart profitable instruction. The first need of this department is a properly constructed building, equipped with evaporator, bleacher and such other appliances as are needed for fruit evaporation and canning.

In the laboratory there is needed a supply of microscopes and other appliances to enable students to investigate efficiently plant diseases. This equipment will enable the department to make good progress within the next two years, and when it is remembered that no appropriation has been made for equipping this important department, I hope this request will be deemed reasonable. In addition there will be needed an annual appropriation to meet current expenses.

DEPARTMENT OF CIVIL ENGINEERING AND PHYSICS.

This department was also established in June, 1887, and has added much to the efficiency of our course of study. With the appropriation made last spring the department has been well enough equipped to meet all the requirements of the college for the next two years, so that no appropriation is asked other than that necessary to meet the current annual expenses, including material for testing machines and repairs to instruments in the physical laboratory.

DEPARTMENT OF VETERINARY SCIENCE.

This department was established during June last and has been in successful operation during the present session. With the appropriation made last spring the department has been fairly well equiped, and there is now in course of erection a small but conveniently arranged stable for the treatment and study of animal diseases, with facilities for dissecting, and thus practically studying the anatomy of our domestic animals. Texas is the greatest stock-growing State in the Union, and it is suggested that no branch of industrial education is more important than instruction in scientific stock breeding. In this connection it is respectfully submitted that, following the example of other States, Texas might reap a rich reward by establishing a State veterinary service in connection with the veterinary department of this College. For the purpose of instruction only in this department no appropriation is needed for the next two years other than a small sum to meet current expenses.

DEPARTMENT OF CHEMISTRY AND MINERALOGY.

As scientific investigations can be made in but few fields of the material world without the aid of the chemist, among the first and most important needs of a technical school is a properly constructed and well equipped chemical laboratory. It is respectfully urged that the most important improvement now needed at the College is a laboratory building. Our facilities in chemical apparatus are sufficient to meet our present needs, but we have no room suitable for a laboratory. We should be supplied with a building properly constructed, with thorough ventilation, and hoods and flues arranged to provide for the escape of noxious and poisonous gases so as to protect the health of those who must work in chemical investigation. The work required in chemical analysis, in connection with the experiment station, increases the need of this most important improvement. I respectfully recommend that an appropriation be asked for this specific purpose.

DEPARTMENT OF DRAWING.

This department was established in June last and is now in successful operation. With the small appropriation made last spring some models and desks have been purchased and a good start has been made.

As drawing is the language of the mechanic, the development of the department should keep pace with the growth of the College, and to that end I respectfully recommend a small appropriation for the next two years to add to the equipment and to meet current expenses.

DEPARTMENTS OF MATHEMATICS, ENGLISH AND HISTORY, AND MODERN LANGUAGES.

These departments give that instruction which is absolutely requisite to the intelligent and profitable study of the technical departments. With the exception of a small appropriation to procure a set of maps for the study of history, no money is needed for these departments during the next two years.

DEPARTMENT OF MILITARY SCIENCE.

As the law of Congress requires instruction to be given in military tactics, this department is maintained in a spirit of honest compliance with the conditions of the grant accepted by the State. Instruction in this department, while it does not interfere with the industrial departments, is thorough as far as it goes, and is invaluable in maintaining discipline and inculcating in our students habits of neatness and promptness, and developing in them a just view of the respect and obedience which every citizen owes to the laws and constituted authorities.

AGRICULTURAL EXPERIMENT STATION.

The act of Congress establishing the Agricultural Experiment Stations in the several States, makes each station a department of the college with which it is connected, but provides that no part of the funds appropriated can be used for college purposes. In accordance with that law the station here is a department of the College, and the director of the station is a member of the Faculty and delivers a course of lectures on experimental agriculture. The station was inaugurated last January. The annual report of the Council, which will be made next January, will give a detailed account of the work for the last year. It is deemed proper, however, in this report to refer to two subjects that are now being investigated, as they are of prime importance to the State, and it is hoped that the Legislature will make an appropriation to assist the station to complete these investigations. The following statement in regard to these experiments has been prepared, at my request, by the director of the station:

" A careful study of the disease known as cotton blight has been made in several portions of the State and the work is still being prosecuted; a report of the results obtained will be published before the first of January. It will be necessary to continue the investigations in the line of experiments to find preventives, and it is desirable to make these tests on land that is subject to the ravages of the disease where cotton is extensively grown. A new line of work has been started jointly with the Experimental Station of Missouri—work suggested by Dr. P. Paquin, Veterinarian of the Missouri Station, with the expectation of finding a practical preventive of Texas cattle fever. The Missouri station has been testing various methods for inoculating cattle to prevent transmission or the reception of fever germs, and the result of their work indicates that cattle may be inoculated and disinfected so as to insure safety in shipping either North or South at any season in the year. The work proposed for the coming year includes shipping disinfected cattle North and inoculated cattle South in sufficient numbers to demonstate fully the value of the treatment. To prosecute the work in a satisfactory manner more means will be required than can be furnished from station funds; the value of a discovery of a preventive to the spread of this disease to the State is so great that it seems desirable to petition the Legislature to appropriate funds for the purpose of making a complete and exhaustive test."

It is also very desirable to establish branch experiment stations. As the State has several farms in connection with its penal institutions situated in different parts of the State, it is believed that with little expense these branch stations can be inaugurated. It is respectfully recommended that steps be taken by your honorable body to establish a branch station on each of these farms. For these purposes it is respectfully recommended that the Legislature be asked to make an appropriation. For a more detailed account of the several departments I respectfully refer you to the reports of the professors herewith submitted and made a part of this report.

INCREASE IN NUMBER OF DEPARTMENTS.

It is believed that in the near future the development of our mineral resources will create a demand for instruction in metallurgy and mining engineering, and it is respectfully recommended that the Board of Directors take steps looking to the supplying of that demand. With this exception it is not believed that the College will need any further provision for additional technical departments during the next two years.

HEALTH OF STUDENTS.

During the past two years the health of students has been good, with the exception of an epidemic of mumps and measles. No deaths have occurred. In the summer of 1887 a plain but commodious frame building was erected for an infirmary and surgeon's residence. To this was due, in a great measure, the recovery of quite a number of serious cases of complicated measles. The want of a hospital building has been felt ever since the organization of the College, and that this has been supplied has added much to the comfort of the students.

LIBRARY AND READING ROOM.

This contains three thousand six hundred and ninety-six volumes and eighty papers and periodicals. A well selected and varied library is a factor in the education of young men, the importance of which can not be overestimated. A large number of agricultural and scientific papers, as well as several of our State papers, have been contributed to the reading room or furnished at reduced rates. It is highly important that the library should continue to grow, and the importance of an annual fund for this purpose is respectfully urged.

MUSEUM.

During the past year a collection for a museum has been commenced. In a scientific school this is a most important department. Instruction cannot be imparted successfully in scientific subjects unless it is accompanied with the characteristics and properties of the objects studied. It is not specially desired to collect a museum of curiosities, but it is very important that we should have here a complete exhibit of the minerals and agricultural products of our State, including woods, building materials, oils, etc., etc. A small sum judiciously expended each year will soon make a very important addition to our facilities for promoting industrial education. In this connection, and to further this end, initial steps have been taken to connect the mechanical and civil engineering and chemical departments with the

STATE GEOLOGICAL SURVEY,

and I respectfully recommend that your honorable body take action looking to an intimate connection between the College and this important work. This will enable the College to be of direct and immediate assistance in developing the material resources of the State, and the collections made will enable the faculty to acquaint the students with the vast resources of our great State.

REQUISITES OF ADMISSION.

To enter the College an applicant must be in his sixteenth year, or at least must have attained a degree of physical and mental advancement corresponding to that age. He must be free from contagious or infectious disease, or any deformity that would unfit him for the performance of his duties as a student of this College. He may be required to furnish evidence that he has not been dismissed from another institution of learning and that his moral character is good.

The mental attainments necessary for entering on the course of study comprise a fair knowledge of arithmetic as far as proportion, of descriptive geography and of elementary English grammar and composition.

EXPENSES FOR SESSION OF NINE MONTHS.

Incidental fee	$ 5 00
Physician's fee	5 00
Maintenance, fall term	45 00
Maintenance, winter	50 00
Maintenance, spring	45 00
Total	$150 00

In addition to the above a charge of $5 will be made to cover possible damage to the College property and the cost of chemicals and other material used by the students. Incidental and physician's fees are payable on entrance, whether at the beginning of or during the session and cannot be refunded. Maintenance includes board, fuel, washing, lights, room rent, bedsteads, mattresses, pillows, tables, washstands, chairs, wardrobes, buckets, basins and slopcans, all of which the College furnishes.

UNIFORMS, BOOKS AND STATIONERY.

A neat uniform of cadet gray cloth is furnished here at a cost of from $15 to $20, depending on sizes. These uniforms are made by contract and students are required to purchase from the contract tailor in order that uniformity may be secured in the cut and quality of the clothing and that parents may be protected from imposition by irresponsible persons. The contract suits are carefully inspected by the commandant of cadets and thus the full value of money expended for them is secured.

Books and stationery may be obtained here. They will probably cost about $5 to $15 per session.

GROUNDS AND BUILDINGS.

The pressing need for additional accommodations and equipment has prevented much expenditure in the ornamentation of the grounds. It is hoped, however, that this important feature may now be prosecuted by a sufficient annual appropriation to carry out the systematic improvement of the campus already agreed upon. The buildings are all in good repair. In order to preserve them, it is absolutely necessary annually to expend a sum in repairs. As preservation of property is true economy, it is hoped that an appropriation for this purpose will be granted.

CAPACITY OF ACCOMMODATIONS.

The College can now comfortably accommodate about 150 students. When the new dormitory is completed (which will be in the spring) there will be accommodations for 225 students. While it is believed that the number of applicants will exceed that number within the next two years, yet it is not deemed necessary to ask for any increase of accommodations at the present time, for it is submitted that it will be better to develop and improve the College internally so as to be better prepared to instruct a larger number of students.

EXPERIMENTAL WORK.

Since the organization of the agricultural experiment station, all experimental work has been carried on under the station. I respectfully refer to the forthcoming report of the station for statement of experiments made, with their results.

IMPROVEMENTS.

Owing to the liberal appropriation of the Twentieth Legislature and the wise economy of the Board of Directors, the past two years have been marked by more material improvements and additions to the College property than any similar period in its history. During the summer and fall of 1887 there were erected: Pfeuffer Hall, named in honor of Hon. George Pfeuffer, late President of the Board of Directors, a two-story brick building, of twenty-five rooms, with accommodations for seventy-five students; a frame building of seven rooms for hospital and surgeon's residence, a frame building as residence for the foreman of the farm, a creamery building with complete equipment, a small propagating and green house, a brick blacksmith-shop, with its equipment, four underground cisterns, besides numerous repairs to the buildings. The cost of these improvements will appear in a subsequent portion of this report.

With the appropriation made by the called session of the Twentieth Legislature the following improvements have been commenced, some of which are completed: Austin Hall, a two-story brick dormitory, containing twenty-five rooms, with capacity to accommodate seventy-five students; two frame professors' cottages; enlargement and repair of the college barn; addition to cattle shed; four underground cisterns; complete repairs to the outside of all the College buildings, and as far as the means would permit, the inside; Nicholson pavement in the machine shop; fencing the remainder of the College lands, about 850 acres, and repairing the College fences. The College property is now in good condition, and will only require a small annual expenditure to keep it in good repair. Plans for the Assembly Hall have been drawn and contract let for the erection of the same, with the exception of all the finishing work. It was found that the money appropriated would not finish a building of sufficient size to meet the demands of the College, and therefore it was deemed better to erect the walls and cover in a suitable building, awaiting a further appropriation to finish the building. It is respectfully recommended that the estimates for the next two years include a sum sufficient to finish this much needed building.

With the same appropriation several of the departments have been well equipped, and a hospital erected for the veterinary department.

IMPROVEMENTS BELONGING TO THE AGRICULTURAL EXPERIMENT STATION.

Under the law of Congress, during the first year $3,000 of the annual appropriation for experiment stations could be spent for buildings, and thereafter an amount not exceeding five per cent of the appropriation, or $750. Under this provision of the law the following improvements have been made: A large silo with three rooms, each sixteen feet square; two cottages for laborers; and a large shed for cattle feeding. In addition the station bore one-half the expense of building and equipping the creamery and propagating house.

FINANCIAL AFFAIRS.

This portion of the report covers the period from the close of last report, January 1, 1887, to June 1, 1888, close of the last college year, with a statement of the disposition of the State appropriation for the current year.

From January 1, 1887, to March 1, 1887, there was received from the State treasury $1,848.20, being the balance of the State appropriation remaining unexpended at the date of last biennial report January 1, 1887. This was expended in paying salaries of officers and employes for the months of January and February, 1887, as indicated in the report referred to.

From March 1, 1887, to June 1, 1888, there was received from the State Treasury:

General revenue	$25,000 00
University fund	5,000 00
Total	$30,000 00

This was expended as follows:

First for improvements—

Pfeuffer Hall, building	$11,367	21
Furniture	260	79
Total	$11,628	00
Hospital	$2,015	07
Farm House	1,279	87
Creamery	772	09
Smith shop	817	80
Cisterns	851	84
Gas	287	83
Propagating House	290	33
Total improvements	$17,943	83

Second, current expenses:

Salaries	$7,257	89
Mechanical department	410	46
Chemical department	498	14
Mathematical department	35	75
Drawing department	92	15
Agricultural department	577	09
Library	500	00
Horticultural department	587	19
Repairs	964	13
Section room furniture	207	57
Educational exhibit	74	75
Printing	500	00
Museum	188	40
Expenses attending Agricultural and Mechanical convention	137	95
Incidental expenses	24	70
Total	$12,031	47
Grand total	$30,000	00

This left a balance, June 1, 1888, of appropriation made by the Twentieth Legislature of $5,000.00 Owing to the increased attendance during the session, 1887–88, there was a small surplus arising from the maintenance of students of about $4,000.00 which, with the unexpended interest on United States endowment at that time, $2,966.53, gave the Board the sum of $11,966.53 to meet the current expenses of the College from June 1, 1888, to March 1, 1889, the end of the appropriation year. This sum would not have sufficed, had it not been for the liberal appropriations of the called session which provided for a portion of expenses which otherwise would have been a charge upon the annual income.

The special session of the Twentieth Legislature in May last made the following appropriations for improvements as stated:

To erect dormitory and assembly hall	$20,000 00
For furnishing same	2,000 00
For repairing College buildings and Professors' residences	9,000 00
Water supply	2,000 00
Erecting barn	1,000 00
Equipping Mechanical Department	1,500 00
Fencing College land and repairing fences	2,500 00
Equipping Civil Engineering Department	1,000 00
Equipping Veterinary Department	1,500 00
Equipping Drawing Department	500 00
For work stock and farm implements	500 00
Total	$41,500 00

As the Board of Directors did not authorize expenditure of this fund until their annual meeting in June last, and the work under said appropriation is still in progress, a complete report can not be made of the disbursement at this time. The following statement is made of the estimated cost of improvements now being made:

Dormitory	$9,000 00
Assembly Hall (present contract)	14,000 00
Furniture	2,000 00
Water supply	2,000 00
Professor's residences	3,200 00
Repairs to the College building	5,800 00
Barn	1,000 00
Equipment, mechanical department	1,500 00
Equipment, civil engeering department	1,000 00
Equipment, veterinary science	1,500 00
Equipment, drawing	500 00
Fencing	2,500 00
Work stock and farm implements	500 00

At the end of the appropriation year all the above amounts will have been expended.

INTEREST ON ENDOWMENT ARISING FROM UNITED STATES LAND GRANTS.

The State receives from United States land grants for this College 180,000 acres of land scrip; the scrip was sold in 1871 at eighty-four cents per acre, and the proceeds invested in seven per cent State bonds. The amount realized from sale of scrip was $156,000, and the bonds purchased amounted to $174,000. In 1876, $35,000 with accumulated interest was invested in six per cent State bonds. This now forms the permanent endowment of the College. By the conditions of the land grant and the laws of the State, the interest alone of this fund is available, and that only for the pay of professors and officers of the college.

Bonds.	*Rate.*	*Interest.*
$174,000.00	at 7 per cent	$12,180 00
35,000.00	at 6 per cent	2,100 00
Total annual interest		$14,280 00

Amount disbursed from this fund:

Payment of professors and officers Jan. to June, 1887	$7,059 90
Payment of professors and ocffiers June, 1887, to June, 1888	14,030 00
Total disbursed	$21,089 90
Receipts January 1, 1887, to June 1, 1888	$21,424 00
Disbursed	21,089 90
Balance	$334 10
To which add balance on hand January 1, '87	$2,632 43
Total balance	$2,966 53
Annual interest	$14,280 00
Total amount available for session 1888 and 1889	$17,246 53
Set apart to pay professors and officers June '88 to '89	17,000 00
Leaving balance June 1, 1889	$246 53

SALARIES OF PROFESSORS AND OFFICERS.

The following are the salaries now paid from College funds to the several officers named:

Chairman of the faculty	$400 00
Three professors at $2,250	6,750 00
One professor	2,000 00
Two professors at $1,500	3,000 00
Three associate professors at $1,000	3,000 00
One adjunct professor	1,000 00
Five assistant professors	1,890 00
Two instructors	1,275 00
Foreman of carpenter shop	720 00
Foreman of farm	800 00
Foreman of garden and orchard	500 00
Agent of board	750 00
Steward	1,500 00
Janitors	500 00
Bookkeeper	200 00
Total	$24,285 00

The annual income from endowment is $14,280.00, leaving a balance to be paid out of the State appropriation of $10,000.00.

The surgeon receives a salary of $900 per annum, which is paid from fees charged students for that purpose.

NEEDS OF THE SEVERAL DEPARTMENTS OF THE COLLEGE ON AN ECONOMICAL BASIS.

In order that the expenses of the students may be made a minimum, and thereby the practical education afforded by the College enjoyed by the greatest number of young men from the industrial classes of our people, the College should have an annual income sufficient to pay the salaries and wages of all officers and employes absolutely necessary to its successful operation, and, also the other expenses incidental to its work as an industrial institution, and to keep the buildings, grounds and equipments in thorough repair. The following estimate of annual needs of the several departments is appended:

The annual amount stated below is in addition to the interest on the endowment, which is by law set apart to pay the officers and professors and which is now entirely used to pay the professors of the college. The annual appropriation for maintenance and support for the past six years has been $15,000. The growth of the college has been such that the increase of the departments necessitates an increase in the annual expenses. It is respectfully recommended that the Legislature be asked to make this increase in annual appropriation in order that the Board of Directors may be enabled still further to reduce the cost of maintenance to the students. Should the Legislature grant the appropriation here asked for it is believed that the expenses for the students can be, with safety, materially reduced.

ESTIMATE OF ANNUAL EXPENSES FOR A. & M. COLLEGE.

To pay professors and officers	$10,000 00
Agricultural Department, annual expenses	500 00
Mechanical Department, annual expenses	500 00
Drawing Department, annual expenses	250 00
Civil Engineering and Physics Department, annual expenses	500 00
Horticultural Department, annual expenses	500 00
Chemical Department, annual expenses	500 00
Veterinary Department, annual expenses	500 00
Repairs, annual expenses	1,000 00
Library and Reading Room, annual expenses	1,000 00
Improvement of grounds, annual expenses	1,000 00
Purchase of fine stock	1,000 00
Student labor	1,000 00
Holding Farmer's Institutes	500 00
Expenses of Members of Board	250 00
Advertising, printing, stationery and postage	1,000 00
Total annual expenses	$20,000 00
For experiment stations, investigation of cattle fever and establishing branch stations	$2,500 00

It is earnestly hoped that the improvement in the college property may be continued during the next two years, and to that end the following needed improvements are asked for:

For two years:

Chemical Laboratory, building and equipment	$10,000 00
Building for Horticultural Department as previously spoken of	1,000 00
Foundry building, cupola and equipment	1,500 00
Completion of Assembly Hall	7,500 00

OTHER IMPROVEMENTS.

There are many other improvements to the college property which would add much to the advancement of the college, such as a thorough system of steam heating, graded walks, electric plant for lighting, brick carpenter shop, a system of water works, houses for employes, professors' residences, etc., but it is believed that the improvements already asked for are those which are now pressing and necessary to the continued growth of the college.

RECEIPTS AND DISBURSEMENTS FOR MAINTENANCE OF STUDENTS.

In this exhibit, "from Agricultural and Mechanical College," includes all money received from all sources other than the State appropriation, viz: From students, professors, officers, sale of farm produce, etc. For "Agricultural and Mechanical College" includes all money expended for the maintenance of students, which includes board, washing, fuel, lights, medical attention, text books and incidental expenses; the pay of all officers and employes, except those paid from State appropriation, and all expenses incidental to the maintenance of the students.

RECEIPTS.

Balance on hand Jan. 1, 1887	$7,037 22
Error in last report	25 00
Receipts Jan. 1 to June 1, 1887	7,073 32
Receipts June 1, 1887, to June 1, 1888	30,073 43
Total receipts and balance Jan. 1, 1887, to June 1, 1888	$44,208 97

DISBURSEMENTS.

Jan. 1 to June 1, 1887	$12,321 71
June 1, 1887, to June 1, 1888	25,078 82
Total receipts	44,208 97
Total disbursements	37,400 53
Balance June 1, 1888	6,808 44

There were some outstanding bills against this balance which reduced it to about $4,000 the amount previously mentioned in this report as the profit made by the College. This profit represents the only income of the College derived from this source, as in the expenditure of the balance the College only acts as agent for its patrons, spending the money for the actual maintenance of the students.

INVENTORY.

A complete inventory of College property has just been made which shows property to the value of $301,270. This exhibit is hereto attached marked Exhibit A.

DETAILED EXPENDITUTES.

I submit herewith a list of all warrants paid by Secretary from January 1, 1885, to June 1, 1888, marked Exhibit B.

An account is kept in this office with each of the several departments of the college, said accounts are credited with the amounts appropriated to each by the Board of Directors, and charged with all the expenditures made in pursuance of the orders of the Board. When an account has been certified to as being correct by the head of the department it is examined and audited by the agent of the Board, who then draws his warrant on the Secretary, specifying against what appropriation said warrant is drawn. The Secretary pays the agent's warrants by drafts on the fiscal agent, who is placed under a $30,000 bond. By a wise order of the Board the Secretary is forbidden to pay any warrant after the amount appropriated for the account against which it may be drawn has been exhausted.

CONCLUSION.

In conclusion the Chairman desires to bear testimony to the zeal and faithfulness of the officers and professors of the college, and to acknowledge his gratitude for the support which has been accorded him in the discharge of his duties.

Respectfully submitted,
Louis L. McInnis,
Chairman of the Faculty.

REPORT OF THE AGENT.

To the Hon. C. C. Garrett, President of the Board of Directors, State A. and M. College:

SIR: In making to you this my second report as Agent of the Board of Directors, it affords me the utmost pleasure to congratulate the honorable Board upon the success that has attended the able management of the College since my last biennial report, and for its substantial progress and present healthy condition.

The people of Texas, through the Legislature, have shown an appreciation of your valuable services by affording you the necessary means to develop the institution, and this should encourage you to ask for such additional appropriations as may be necessary to still further increase the usefulness of the College.

The money appropriated by the Twentieth Legislature has been expended, as will be shown by the secretary's report, in the erection of a two-story brick dormitory with capacity for seventy-five students, named in honor of the late President of the Board of Directors, "Pfeuffer hall;" a hospital, long needed for the accommodation of the sick, with surgeon's residence attached, and a residence for the steward of the College, besides four large cisterns, repairs, etc.

The appropriation made by the Legislature in extra session, in April last, has been, in part, expended in building an additional two-story brick dormitory, sufficient for the accommodation of seventy-five students, named in honor of Stephen F. Austin, of early Texas fame, "Austin hall;" the erection of two handsome cottages for professors, with cisterns for each, repairing and painting residences, College buildings, barns, stables and other outhouses. Additional buildings have been put up, and others are under construction, for the better care and handling of stock; the readjustment and repairs of stock yard fences. A portion of the fund has been appropriated for building an assembly hall, a contract for which has been secured, but the work has been delayed by bad weather and the impossibility of getting brick.

About eight hundred acres of the outlying College land has been substantially fenced, adding that area to pasturage. The cost of fencing was increased by unnecessary roadways across the land.

The division of several of the departments of the College into separate departments, and the organization of additional departments, have increased expenditure, by the necessity of properly equipping them.

Within the period embraced in this report, the "experiment station" has been added and organized, by your honorable Board, as a department of the College, thereby materially increasing the advantages of the practical education here to be obtained.

The substantial improvements made to the College by your honorable Board, since my last report, are manifest to any one familiar with the institution, adding nearly twice to the value of all improvements made since the property was first turned over to the Board of Directors.

In the disbursement of money for College purposes the utmost economy has been observed consistent with the best service. This has been secured by obtaining competitive bids for all supplies furnished and work done.

The appropriation made by the Legislature in April last, with which to build a "chapel and assembly hall," was less than the sum asked for by the Board, and much below an amount adequate to put up a building suitable to the growing necessities of the College. Therefore, in order to finish the chapel, already begun, in accordance with plans and specifications and in conformity with other public buildings of the State, it will be necessary to ask for an appropriation of $10,000, and it is respectfully suggested that you ask the Legislature for that sum.

For the last six years the Legislature has appropriated for the maintenance and regular contingent expenses the sum of $15,000 per annum. To render the course of instruction more efficient your honorable Board very wisely separated horticulture and botany from agriculture. A like division was made by separating physics from chemistry, and you also organized a "department of veterinary science." This, of necessity, required the appointment of additional professors for these three chairs.

The erection of two brick dormitories and an assembly hall, a hospital, stewart's dwelling and two professor's cottages, besides other important improvements, as before stated in this report, in addition to your earnest desire to reduce the cost of maintenance to students, render it absolutely necessary that the appropriation of $15,000 referred to above be increased to not less than $20,000 per annum.

With this support the College will continue to grow in usefulness, and it is therefore recommended that you ask for the latter amount for the next two years.

An inventory of property taken two years ago showed the total value of property belonging to the Agricultural and Mechanical College of Texas at that time to be $228,972.47. The inventory taken December 15, 1888, shows a total value of $301,207, a tangible addition to the property of the College within the last two years of $72,234.53. Under the wise administration of your honorable Board and the generous appropriations and fostering care of the Legislature, the College grows in usefulness and in ability to give a better and higher education to the young men of our State.

The Legislature has always shown a just appreciation of the A. and M. College, and since the State has become able has given it that liberal support that meets the approval of the great body of the people.

Now, good economy and prudent forethought teaches that the property of the State should be preserved and the constant growth of the College fostered, and to do this it will take nothing less than the modest sums asked for its maintenance to secure continued success.

For details of matters herein contained I respectfully refer you to the itemized report of the Secretary of the Board.

I have the honor to be,

Very respectfully,
Your obedient servant,
T. M. Scott,
Agent.

REPORT OF THE DEPARTMENT OF AGRICULTURE.

A. AND M. COLLEGE, COLLEGE STATION TEXAS,
November 24th, 1888.

Prof. Louis L. McInnis, Chairman of Faculty:

SIR—In response to your official request, I beg leave to submit the following brief report for the agricultural department, 1888, and statement of needs for ensuing year:

I am gratified to note a steady increase in numbers of students taking the agricultural course, there being six students in the first class, eight in the second class, and eighteen in the third class, or a total of thirty-two students in the three upper classes alone, taking the agricultural course.

There are a number of students taking special courses in agriculture in addition to the number given above.

Instruction has been given in accordance with the following brief outline of course of study, as now laid down, and practice had as there stated:

FIRST YEAR—FOURTH CLASS.

Members of this class take up the study of domestic animals—origin, history, description, merits, objections, etc., of each of the different breeds of horses, cattle, sheep and swine—with suggestions on care and management, supplemented by examination and discussion of the stock owned by the College. This class also pursues the study of elementary agriculture, supplementing their work in the class-room by field tests with different crops and fertilizers, performing the entire work of planting, fertilizing, cultivating and harvesting in a field set apart for this purpose.

SECOND YEAR—THIRD CLASS.

Members of this class take up the study of dairying, including selection of milk stock, followed by the study of stock breeding. Members of this class do the entire work in the creamery, so far as their time will allow, under the direction of the professor or assistant, during the winter and spring terms.

THIRD YEAR—SECOND CLASS.

Members of this class pursue the study of cattle feeding during the entire year. The second class men have practice in the creamery during the fall term, and practice in cattle feeding during the winter and spring terms.

FOURTH YEAR—FIRST CLASS.

Students in this class pursue the following studies: Fall term, farm drainage; winter term, fertilizers; spring term, farm management—the whole supplemented by such practice as will best aid the studies pursued.

IN THE SPECIAL COURSES

Students are necessarily given considerable latitude in the choice of studies. It is believed that the special courses will prove a valuable addition to the curricula of the College. Giving, as they do, opportunity to young men of mature age to obtain an education in the special work they intend to follow, without the delay and expense necessary to complete a full course, their value can hardly be overestimated. It must be borne in mind, however, that to develop them properly will require time and a gradual increase in facilities and in teaching force.

An especial interest has been shown in creamery work, and I am confident that the work in this important line adds much of real value to the agricultural course. The dairy interests of our State are rapidly growing in importance, and the College should meet this growth with increased facilities for instruction. I would call attention to the need of adding to our stock of pure-bred animals now owned on the College farm. At least $1,000 could be profitably used in the purchase of pure-bred cattle alone, of the representative breeds, to say nothing of what could and should be used in stimulating and developing the great wool interests of the State.

In this connection also I cannot fail to urge that provision be made to enable the farm to secure a competent stockman. It will be impossible to advance this feature of the agricultural department properly without a competent man of this kind to attend to all details. To secure a good man will require at least $600 per year, with quarters furnished, but the outlay will be justified by the results.

There will be needed, also, the usual fund for current repairs and improvements—say $500 at least. We have been compelled this year to build, with department funds, a much needed barn for the proper shelter and control of bulls, a step made necessary by the extra room taken for the Experiment Station stock.

I would respectfully urge once more the great benefit which might arise from—the almost actual necessity existing for—a definite, stated labor fund to be used in the several departments in paying for uninstructive student labor. It is of course known and admitted that student work is, by virtue of its transient nature, employed at greater or less loss to the College. I submit, therefore, that, if student labor is to be employed by the College there should be provision, outside of department funds, made for its support. There can be no doubt of the advisability of encouraging, urging students to pay a portion of their College expenses by manual labor, and with this admitted, the argument in favor of a stated labor fund, seems, to my mind, irrefutable.

Respectfully submitted,

GEORGE W. CURTIS,
Professor of Agriculture.

REPORT OF THE DEPARTMENT OF MECHANICAL ENGINEERING.

L. L. McInnis, Chairman of the Faculty:

SIR—Since making the last biennial report the equipment of this department has been materially improved by the addition of several machine tools and a number of small tools for fine measurements, and of a forge shop with a complete equipment for five forges. In this shop the blower, which furnishes the blast for the forges, is operated by a small engine built and set up by the graduating class of 1888. With these additions to the equipment and the extended course, it has been possible to make several valuable additions to the practical work of the department, and these latter additions apply not only to the quantity of work turned out by the students, but also to the quality. It has also been possible to make a number of changes in the methods of imparting instruction, but as these have been made gradually, and are not radical changes, it will suffice to say here that all lead to improvements. In the machine shop some of the tools might be duplicated with great advantage to the department, especially as the classes increase in size. At present we have, with one exception, the main features of industrial work represented, the exception being that we have no facilities for instruction in foundry work, such as moulding and casting metals. This work may be placed on a level with blacksmithing for importance, inasmuch as both are at the foundation of giving metals the various shapes which are necessary for their use in the arts and in manufacture. And as our classes reach a higher standard there will arise a demand for a knowledge of this work; not a demand for skilled workmen in this branch, but a demand for such a knowledge of the subject as to insure an intelligent, and in many cases valuable judgment, upon any question bearing upon this or kindred subjects, all of which may be obtained, to a great extent, from a comparatively short course in practical moulding and casting. Financially the department is on a good basis for the present work, but owing to the addition of the blacksmithing course a corresponding addition should be made to the fund set aside for running expenses. During the coming year an improvement will be possible in the course in carpenter work, owing to the fact that a greater difference can be made in the work of the two lower classes when the present drawing room is fitted up with benches and tools for that work.

Owing to changes in the teaching force necessitated by the resignation of the foreman of the shops, the department is somewhat at a disadvantage in regard to the outside work, but as an offset to this several changes in the methods of instruction have added to the efficiency of the actual teaching of the classes.

Student labor has been given a trial and from the results shown thus far it recommends itself in every way as a thing to be encouraged and fostered in every possible manner. In closing it might be well to say that the department seems to be in a good healthy condition and the work of the present year compares very favorably with that of the preceding years.

R. H. Whitlock,
Professor of Mechanical Engineering.

REPORT OF THE DEPARTMENT OF VETERINARY SCIENCE.

Prof. L. L. McInnis, Chairman of the Faculty:

Sir,—I hereby submit a report of the Department of Veterinary Science:

The instruction given by this department to the agricultural students, first class, consists of

I. Lectures on veterinary anatomy, comprising a discussion of the bones, articulations, muscles, digesting and respiratory trochs, genito-urinary apparatus, vascular and nervous systems and organs of special sense in the order named. The text book used is Fleming's translation of Choveau's Anatomy.

II. Special Pathology:

This subject is introduced by a brief consideration of general Pathology, embracing congestion, inflammation, thrombosis, embolism, hemorrhage, dropsy, hypertrophy, atrophy, degeneration, fever, collapse and death. Special pathology is divided into contagious and epizootic diseases, constitutional diseases, diseases of special apparatus, viz.: Respiratory, digestive, genito-urinary, vascular, nervous and locomotary, and is supplemented by parasitic diseases, tumors and morbid growths. The text books used are the works of Percival, Robertson, Williams, Liontard, Low, Steel and Hill.

III. Materia Medica and Therapeutics:

The history, manufacture, action, dose, prescribing, dispensing and administration in the various forms, of most drugs used by the veterinarian, receive thorough consideration and are followed by a brief notice of poisons and their antidotes.

The text books are Dun's, Bruce's and Bartholow's.

IV. Practice of two hours per week consists of visitation to any disabled animals about the premises and hospital work. This hospital work will consist of examinations for health and disease, administration of remedial agents in various forms, casting and securing animals, application of slings, bandages and dressings, normal histology of animal tissues, dissections, manner of making post-mortem examinations, and some minor surgical operations on the cadaver.

The four grades of work just specified are being carried out at the present time as well as circumstances permit, and when completed will be followed by the study of:

I. Obstetrics:

Embracing obstetrical anatomy, physiology and pathology, and all accidents and abnormalities incident to pregnancy and parturition.

II. Horse shoeing:

A short course of lectures will be delivered on physiological, orthopedic and surgical shoeing.

III. Sanitary medicine:

The relation of animal disease to the public health will be briefly discussed.

Zoology:

This subject was assigned to this department at the opening of the current year. The progress of the class has been fair only on account of the general qualification of its members and the facilities for illustration.

Veterinary physiology will occupy one hour per week during the second and third terms to the members of the second class. This will not only enable them to understand their own mechanism, but will also prepare them for the study of pathology the following year.

The equipment of the department consists of the skeletons of the horse, dog and parts of the ox, a collection of surgical and restraining apparatus, a well equipped dispensary, crude and refined drugs, optical and laboratory apparatus, Azoux's models of the foot, virgin and gravoid uterus, a few pathological specimens, and a respectable library of standard veterinary works.

I herewith present an approximate statement of the distribution of the funds of the department: Surgical instruments, optical goods, books and periodicals, drugs, appliances, models, glassware, etc., as per bills rendered, $950.

The balance of the funds will be consumed in the erection of a suitable hospital and dissecting room, 24x36 feet, provided with water, light, heat and all utensils. In order that the work may proceed systematically it will be necessary that an annual provision of $500 be made for constant and growing needs.

Respectfully submitted,

M. Francis,
Associate Professor of Veterinary Science.

November 23rd, 1888.

REPORT OF DEPARTMENT OF HORTICULTURE AND BOTANY.

A. AND M. COLLEGE OF TEXAS.

Louis L. McInnis, Chairman of Faculty:

SIR—In obedience to your request, I have the honor to submit the following report on the organization and present needs of the department of horticulture and botany:

This department was established by the Board of Directors a year ago last June to represent at this College the great and growing horticultural interests of this State, and to give such courses of study as would enable a young man to acquire a good knowledge of the structure and functions of plant organs and of the correct principles which govern the growth and improvement of plants. To this end it has been the endeavor of its head to develop the department to meet these demands commensurate with the growth and development of the College.

The thing of first importance was to lay out such courses of study that would meet the peculiar needs of this State, which differs in its interesting flora and in its varied condition of climate, moisture, and in many cases in soils, from any other State in the Union. The courses in botany were so arranged as to form a strong scientific basis for the horticultural, and I may say several of the studies in other departments.

Students, the first year, are taught organography of plants or the gross anatomy of plants, so that they may converse freely and intelligently on subjects bearing on the organs and many parts of a plant, and be more able to understand its wonderful, vital and reproductive phenomena

The second year is spent in as an extended and exhaustive a study of the management and culture of the common fruits and vegetables found in our markets, as the development of the illustrative material will permit.

The third year is devoted to special subjects, which require much of the previous attainments of the student to thoroughly master and comprehend them. Grasses and other forage plants is a course that furnishes valuable knowledge to those that are interested in stock-raising or animal industries.

Economic and systematic botany acquaints the student with a large number of the important plant products of the world and with the natural orders of plants producing those products.

The third subject studied during this year is that of forestry. The needs of this addition to the courses for Texas students is self-evident from the fact that Texas has more treeless area than any other State, and moreover because she has an almost unlimited area of fine heavy timber lands that need the careful hand of the educated forester to foster and save them from the hands of the careless woodmen and devastating saw mill monopolies.

During the fourth year there are four subjects taught which introduce the student to special lines of work and investigation largely connected with the microscope.

The first subject, Fungi and Plant Diseases, deals with those low minute forms of plant life which produce mildews, blights, rusts, smuts, etc., so destructive and disastrous to higher plant life and growth. The student is required to study out their growth and anatomy under the microscope.

Vegetable Histology and Physiology are two subjects which play an important part in the proper understanding of the life and growth of plants, the functions of their organs, and the formation of their economic products.

A course in Horticultural Economy and Industries was added this year for the purpose of giving students an insight into the everyday work of horticultural pursuits and into the proper management and control of manufacturing horticultural products for the trade.

Last but not least is a course in Floriculture and Landscape Gardening, which prepares the student to adorn his home, town parks, drives and cemeteries, acquaints him with the propagation and management of all the common ornamental plants, both for greenhouses and outdoor work.

Next in importance to the courses of study is the development of the illustrative material. This consists of orchards, gardens, vineyards, greenhouses, hotbeds, etc. This work has been carried to the extent that we now have a good substantial greenhouse prepared to propagate the less hardy plants, to keep a number of ornamental plants and to illustrate to students the forcing process in market gardening. This building has been probably the leading adjunct to the department in the way of furnishing illustrative material in most of the above courses. This building, however, is yet incomplete in its heating apparatus. It is heated by cheap flues, which in all modern well equipped greenhouses, are discarded as being expensive in the amount of loss of plants they incur by giving but a fluctuating, uneven temperature, dry air and giving off injurious gasses. I therefore respectfully urge that the flues be replaced by a hot-water system.

The orchards have been largely extended and refilled largely by stock propagated by the students in the nursery here. At present there are about

Sixty varieties of peaches,
Twenty varieties of pears,
Twenty-five varieties of apples,
Twenty-three varieties of plums,
And several varieties of apricots, figs, nectarines, quince, cherries and Japan persimmons. In the vineyard, set out last spring, there are fifty-seven varieties of the leading grapes, to which have been added several more this fall.

In the way of small fruits there are six varieties of blackberries, two of raspberries and twenty-eight of strawberries, all of which have been put out this fall.

To have in one collection all the species and varieties of trees that grow in this State, and also many of the most important in the United States, for experimentation and study, this department has begun an arboretum of over three acres, where these important steps may be developed. This fall this ground is being planted with several species, principally for the purposes of nurses for those that will be inserted later on.

The botanical laboratory has been partially equipped by the meagre means placed at my disposal. Much more is needed by way of microscopes, herbarium cases, reference books, etc., to make the laboratory equal to the pressing needs of the College.

OTHER NEEDS OF THE DEPARTMENT.

The growing demand for men especially fitted to superintend establishments for the preservation of fruits and vegetables, in both a dried and a canned state, and the needs of a more general and extended knowledge among the people of the State on the subject of evaporating and canning fruits, with the rapidly increasing interest in fruit culture, and the large plantations of orchards over the State, makes it imperative that something should be done at this College by way of instructing students to carry on the several operations involved in such work. I therefore respectfully urge that an appropriation be made for a building suitable for these purposes and to properly equip it to care for the fruits and vegetables raised here in the department grounds. Many bushels of fine fruits have been wasted here year after year, simply from the lack of proper facilities to care for them. To this building a fruit and cool storage room could be very appropriately added that would add much to the proper economy and illustration of the work in the department. Being thoroughly convinced that the College will lose largely year after year much of the products that would make this department almost, if not quite, self-sustaining if properly preserved and utilized, I deeply urge that an appropriation be made for the purposes stated above.

Respectfully submitted,

T. L. Brunk,

Associate Professor Horticulture and Botany, A. and M. College of Texas.

REPORT OF THE DEPARTMENT OF CHEMISTRY AND MINERALOGY.

Prof. L. L. McInnis, Chairman of the Faculty:

Sir—I herewith present report for the department of chemistry and mineralogy. Assuming duties on the fourth of last January, I instructed the first class in geology and in practical work in the chemical laboratory. The second class received instruction in chemistry, practical mineralogy and qualitative chemical analysis.

According to the present course of study I instruct the agricultural and the horticultural students of the first class.

First term. Three hours a week in agricultural chemistry ; practice, six hours a week. The second class receive in chemistry four hours a week, and the B. S. A. and B. S. students of the class have practice three hours a week. First and second terms, the entire first class recite geology twice a week.

Second term. The second class recite chemistry three hours a week; the B. S. A. and B. S. students of the class practice six hours a week. First class B. S. A. and B. S. students practice three hours a week.

Third term. First class: students of the B. M. E. and B. C. E. courses practice four hours a week ; students of the B. S. A. and B. S. courses practice three hours a week. Second class recite chemistry four hours a week; practice for the B. S. A. and B. S. students six hours a week.

The "practice" consists, beginning with the second class, of simple experiments, and working with glass, qualitative chemical analysis and determinative mineralogy, leading to the work in the first class of inautitative analysis and manufacturing chemistry. The work of the students has been on an average good, and in many cases excellent.

I have endeavored to make the efficiency of the department as complete as possible under the existing circumstances. The one important thing necessary for our successful advancement is a new laboratory building. As you are aware, the present assignment of rooms in the academic building was supposed to be only a temporary arrangement, until the State could provide other and better quarters. The need for a change is now much more important than ever. In consequence of the demands made upon us by the station and by the State geological survey, as well as by the increasing amount of work sent in by the citizens of the State, and the ever growing size of our classes in practical chemistry, we are forced to ask for more space, and earnestly urge its importance. In doing so we call your attention to the advantages of a separate chemical laboratory building. The prime need is that the building be constructed with reference to convenience of arrangement, a sufficiency of light and thorough ventilation. The latter can be best secured by providing good hoods for the escape of all noxious and poisonous gases. These hoods should be built into the building. They cannot well be constructed afterwards, and should be sufficient not only to protect the health of students, but to protect also the health of analytical chemists who spend the most of their time in the laboratory.

I have been forced during the present session to postpone some important experiments in theoretical chemistry, because there are no flues for the escape from the room of the poisonous gases generated in the experiments. Our water supply has been very poor and frequently resulted in delay of work. We have no quarters for any assay furnaces, and coal and coke furnaces should not be placed in the academic building. A chemical laboratory, unless placed in a basement, should be separated from the other buildings, as a means of safety in case of fire. The danger resulting from stored chemicals is very considerable; they should, when possible, be stored in a practically fire-proof room. The growth of the College as one of the leading institutions in the State, demands that the chemical department shall be commensurate in its growth with the other departments of the College, and fully abreast with the advancement made in this department of science. This growth can be best facilitated in a well equipped separate building, constructed with reference to the requirements of a modern laboratory. I commend this matter to a careful consideration.

The permanent fixtures in a laboratory, such as tables, desks, cases, shelves, water and gas supply pipes, waste pipes, storage, water tanks, sinks and hoods, are necessarily a considerable expense at first, but the cost of repair is always very small. By a rough estimate, I should think these fixtures could be placed in a new building at an expense of about two thousand dollars.

We have made some important additions to our apparatus from the station fund, and from the small margin saved from the College fund. So that now we are fairly well equipped with such material as is necessary for all ordinary analyses, including the examination of soils, waters, feed stuffs, plants, minerals, manure, furnace products, foods, medicinal chemicals, etc. We still need the following asparatus, amounting in all to about six hundred dollars: Additional platinum ware, a new gas combustion furnace, two new gasometers, parts of Hoffman's lecture apparatus, Scheibler's carbonic acid gas apparatus, glassware, Bunsen's apparatus for chlorine determination, Ullgreen's apparatus for carbon in pig iron, Geissler's vaporimeter, one assay balance, gas furnaces, muffles, crucibles, cupels, scorrifiers and tongs, one ore crusher, one large agate mortar, one plate with rubber for powdering ores, and small pieces of apparatus it is unnecessary to mention.

There being no revenue to the department from analytical work, and no compensation from students for their breakage and waste of chemicals, we of course expect our annual appropriation for actual running expenses.

I gratefully acknowledge the valuable services rendered me by my assistants, Messrs. Weppiect, Duncan and Adriance, respectively engaged in work for the station and for the College. The growth of the department has been greatly facilitated by the liberal views of yourself and of the experiment station council.

Respectfully submitted,

H. H. Harrington, Chemist.

December, 1888.

REPORT OF THE DEPARTMENT OF CIVIL ENGINEERING AND PHYSICS.

Prof. L. L. McInnis, Chairman of Faculty A. and M. College of Texas, College Station, Texas:

SIR—In accordance with your request I beg to submit to you the following report of the work in, and the condition and needs of the Department of Civil Engineering and Physics. The classes in the department are doing as well as could be expected of them.

The first class pursued a course in railroad engineering during the fall term. The students were taught to run a railroad line, to take the level notes from the same, to set slope stakes and make the calculations for the volumes of cuts and fills. They studied the work theoretically in the class room, and in the field applied practically their theoretical knowledge.

During the winter and spring terms they will investigate the stress and strains in roof and bridge trusses resulting from various conditions of loading. They will also study the strength of materials, in order that having found the stress in a given member of a truss, they may then calculate the dimensions of the number to sustain that stress. If there is time, it is hoped that the class will do some designing before the end of the year. During the winter term the class use the testing machines, bought this last summer, and find by actual experiment the strength of various materials.

In the spring term the first class will go into the field and do surveying with the second class.

The students of the second class spent the fall term studying graphic statistics. They learned the methods of finding graphically the stress in numbers of a loaded truss.

During tbe winter term they study contracts and specifications.

In the spring term they take up surveying. They study the subject in the class room and then go into the field and do actual work with the various surveying instruments.

The third class study physics during the entire year, using as a text book Peck's Ganot.

Everything studied is illustrated and explained as much as possible by means of experiments made in the presence of the class.

The department is quite well equipped with appliances and instruments necessary to pursue the studies in the course of civil engineering as at present laid down in the cataloeue, and that course is as difficult as our present class of students is able to undertake. With the exception of some few things that will be bought with the money appropropriated last spring, there is nothing pertaining to the course of civil engineering that we need.

The only appropriation that the course in civil engineering needs is one of about two hundred dollars per year for current expenses. For the course in physics the department does not, I think, need any special appropriation, but simply one for repairs and such alterations and additions as may, from time to time, become necessary.

An appropriation of five hundred dollars per year will, I think, be ample for the department of civil engineering and physics.

Respectfully submitted,

J. H. Kinealy,

Associate Professor Civil Engineering and Physics.

REPORT OF THE DIRECTOR OF EXPERIMENT STATION.

Agricultural and Mechanical College of Texas,
Bryan, December 1, 1888.

Professor L. L. McInnis, Chairman of Faculty:

Sir—I have the honor to submit the following report of the work of the Experiment Station Department from June 15, to date. The annual report of the Experiment Station will give in detail the work of the Station since organization last spring.

In accordance with the plans adopted by the Board of Directors of the College and Experiment Station, at the meeting held in June, 1888, certain portions of the farm have been assigned to the Station for experimental work, and a plan adopted for divisions of feed stuffs, labor, etc., that is mutually agreeable to the several departments of the College.

A careful study of the disease known as "cotton blight" has been made in several counties in the State and the work is still under way. A report of what has been done will appear in a bulletin soon to be published.

In October last an agreement was entered into with the Experiment Station of Missouri, to jointly study what is known as "Texas fever" in cattle, work suggested by Dr. P. Paquin, State Veterinarian of Missouri, with reference to finding some practicable method of innoculating and disinfecting cattle so that shipments may be made with safety, north and south, at any time in the year.

Dr. Paquin has already made many experiments in disinfecting and innoculating cattle before exposed to this disease, and the tests promise so much that it is now proposed to make shipments of cattle after treatment to fully determine the value of the preventives.

Many persons in the State who are specially interested in horticulture are desirous of having branch Stations established in different localities in the State for testing fruits, plants, etc. For horticultural work in particular branch stations are essential, owing to the fact that the soil of the College farm is not adapted to the growth of many trees and plants.

The Station is planting a large number of varieties of fruit trees at College Station,.and is duplicating a considerable part of the list at the Prairie View Normal School farm.

Other branch stations may be established on the several farms owned by the State, with moderate outlay of means, provided land may be assigned for such work and labor of convicts furnished.

The Superintendents and their assistsnts could oversee planting and cultivation of seeds, trees, etc., supplied by the Station, an officer of the Experiment Station occasionally visiting the farms and giving general directions in regard to the work.

I would respectfully suggest the advisability of laying the matter of establishing branch stations at the several State farms before the proper authorities for their consideration.

For the purpose of continuing the investigations in regard to "cotton blight," experiments with "Texas fever" in cattle and support of branch stations, I would respectfully recommend that the Legislature be petitioned to supplement the Experiment Station funds with an appropriation of five thousand dollars for each of the years 1889 and 1890.

Respectfully submitted,

F. A. GULLEY, Director.

REPORT OF DEPARTMENT OF DRAWING.

To the Chairman of the Faculty:

Sir—Considering that this is the first report from the drawing department, as a separate department, I feel justified in making the same rather full and exhaustive.

The course in drawing extends through four years. During the first year (fourth class) each student receives a short course in penmanship and then instruction in free hand drawing, which is partly geometrical free hand drawing, including lettering, and partly model drawing, using simple models at first and later the tools, etc., used in the shop.

This course is designed to teach the student to observe closely, and to train his eye to estimate distances, and to judge the directions of lines, and his hands to represent the same.

In the third class the course of study is divided, and the students choose between the agricultural and the mechanical course. Those pursuing the first continue the study of free hand drawing during the two following years, advancing from simple outline drawing to the study of perspective, the effect of light and shade, and then to the drawing of leaves, fruits, plants, etc., from nature, which work bears directly on their study of botany. In the second class they receive also some instruction in mechanical drawing in connection with their work in surveying.

The students pursuing the mechanical course begin the study of mechanical drawing in the third class, but since skill in free hand drawing is of great value to every engineer and draughtsman, the students are required to keep up their practice in this branch of the art by making free hand sketches of almost all drawings before executing them with the instruments.

In the third class they are taught the use of the instruments in the drawing of simple figures, geometrical problems and lettering.

In the second class the study of projection is taken up and applied to the drawing of different pieces of mechanism.

In the first class blue printing is taught as practised in our larger manufacturing establishments, and the knowledge heretofore acquired is applied to making finished drawings, general plans and details of machines and buildings, from measurment or from original design. The drawing in this class is of necessity intimately connected with the studies pursued in the engineering departments.

As it is the prime object of the instruction in drawing to develop the perceptive faculties of the students, and to teach them to express their ideas by means of drawings, it is essential that all drawing, as nearly as possible, be from the object.

This necessitates a complete set of models, both for the mechanical and the free hand drawing. For the latter we ought to have also complete sets of studies and a number of casts.

The last appropriation for the department has enabled me to furnish the new drawing room fairly well; to purchase a few instruments, models and studies, and to make our facilities for blue printing very complete; but it will require another sum of five hundred dollars to equip the department well for its present work.

Very respectfully,

F. E. Giesecke,
Instructor in Drawing.

REPORT OF THE DEPARTMENT OF MATHEMATICS.

Hon. C. C. Garrett, President Board of Directors:

SIR—The course of mathematics extends through four years, with daily recitations. In the fourth class the subjects taught are arithmetic and algebra begun; in the third class, algebra and geometry; in the second class trigonometry, mensuration and descriptive geometry; in the first class analytical geometry, mechanics and the calculus.

Throughout the course there are numerous practical exercises and original problems and demonstrations.

Owing to the increased duties of the head of the department, surveying has been transferred to the Department of Civil Engineering.

The progress of the classes has been as well as could be expected, when the lack of proper preparation for College work is considered.

Respectfully submitted,
LOUIS L. MCINNIS,
Professor of Mathematics.

REPORT OF DEPARTMENT OF ENGLISH.

Professor L. L. McInnis, Chairman of Faculty:

SIR—Responsive to a request for a report from this department of the College, I will say that the Department of English is in good condition, and needs nothing but a complete set of modern wall maps.

Very respectfully,
W. L. BRINGHGHURST,
Head of Department.

A. AND M. COLLEGE OF TEXAS, November 12, 1888.

REPORT OF THE DEPARTMENT OF MILITARY SCIENCE AND TACTICS.

Chairman of the Faculty, A. and M. College of Texas:

Sir—I have the honor to submit the following report of the Department of Military Science and Tactics:

This department owes its existence to the act of Congress endowing this and other similar Colleges, which act requires instruction in military tactics. To carry out this requirement of the law an officer of the regular army is detailed by the President of the United States to act as professor of the department, and as Commandant of Cadets, and the requisite arms, equipments and ammunition are furnished by the general government without cost to the College other than the necessary expense of repairs.

It is unfortunate that the wording of the said act simply requires instruction in military tactics, leaving the amount of time and study to be devoted to it entirely at the discretion ot the College authorities. The result of this indefinite requirement is evasion of the spirit of the law in many of the Colleges benefited by it, a deplorable lack of uniformity in the amount and kind of instruction afforded the students of the different Colleges, and, generally, a defeat of the purposes of the law in question.

After an investigation of this subject, I am assured that this College provides more liberally for the military instruction of its students than any other similar institution in the South, and yet, even here, the time devoted to this subject is inadequate to attain the results which I believe were contemplated by the law.

The cadets of this College are organized as a battalion, subject to military discipline, under the immediate command of the Commandant of Cadets. The battalion consists of four cadet companies with their full complement of officers and non-commissioned officers, and the battalion staff. The officers from the first class, sergeants from the second class, and corporals from the third class are appointed by the Chairman of the Faculty upon the recommendation of the Commandant, and are required to assist in the maintenance of order at all times.

The military system is the means of enforcing discipline and securing regularities in the performance of academic duties. It gives me pleasure to report that the discipline of the corps of cadets is well maintained; flagrant violations of the regulations of the College are rare, while cases of disobedience or disrespect toward a professor are almost unknown.

During the fall and spring terms practical military instruction is given in infantry and artillery drills, rifle firing, and the duties of guards and sentinels.

All military exercises, excepting the necessary guard, are suspended during the winter term. A course of lectures is delivered to the first class, embracing the elements of some of the technical studies connected with the art and science of war. During this term, also, the second class receives instruction in the section room in infantry tactics and the United States army regulations.

In the fall term three hours a week are allowed the department for practical instruction of each of the two higher classes, and five hours for each of the two lower classes; in the spring term three hours a week for each of the four classes.

This limited time for military instruction admits of but rudimentary work, and necessarily gives unsatisfactory results. Much attention is devoted to the "setting up" drills, to straighten and strengthen the students, and to impart an erect and graceful carriage, as this development of the physique is, in my judgment, of first importance. The cadets are then drilled in the schools of the company and battalion, and acquit themselves creditably, considering the limited time allowed for those drills. Once a week during the spring term the cadets of the second class are instructed in artillery drill in the school of the section and platoon (dismounted), and those of the first class in the use of small arms at rifle practice. At the close of this latter practice the cadets of the first class compete for a gold medal awarded by the Commandant.

The Commandant of Cadets being responsible for the maintenance of discipline, I respectfully recommend that more authority be granted him. For minor infractions of the rules and regulations the necessary punishment should be assigned by him instead of by the Chairman of the Faculty. The officers of the army detailed from time to time as Commandant can be trusted to exercise this authority discreetly.

While I must admit that the working of the department is more satisfactory than at any time since my connection with the College, I respectfully submit that the time allowed for instruction is inadequate, and recommend that five hours per week be assigned for the important work of the military department. With full acknowledgment of the existing feeling among certain classes of citizens that the military feature of the Agricultural and Mechanical College should not be made too prominent, I maintain that it is necessary and right to make this a thoroughly efficient department, as upon it depends, to a large degree, the success of every other department of the institution.

Very respectfully, your obedient servant,
GUY CARLETON, First Lt. Second Cavalry,
Professor of Military Science and Tactics.

REPORT OF THE DEPARTMENT OF LANGUAGES.

Professor L. L. McInnis, Chairman of Faculty A. and M. College:

Sir—In reply to your request regarding the condition of the Department of Foreign Languages, I have the honor of presenting to you the following statement.

The department consists of three divisions:

1. The German.
2. The Spanish.
3. The Latin.

The German division is divided into six separate sections.

The first section contains the pupils of the regular first class, reading now "German Prose," by H. Boisen.

The second class contains those pupils of the same class who have recently changed the agricultural course for the horticulture, studying now "Graded German Lessons," by W. C. Collar.

The third section contains the pupils of the regular second class, studying "Graded German Lessons," by W. C. Collar; syntax.

The fourth section contains the third and fourth classes, studying the same book; rudiments.

The fifth section contains advanced scholars, writing compositions.

The sixth class contains post graduate course, reading "Vienna von Barnhelm."

The Spanish division is divided into three sections:

The first section comprises the pupils of the regular first class, reading "New Spanish Reader," by Velazquez de la Cadena.

The second section contains the pupils of the regular second class, studying "Complete Spanish Manual," by Alberto de Tornos.

The third section contains the pupils of the third and fourth classes, studying the same book; elements.

The Latin division consists of two sections:

The first section contains the pupils of the first and second classes, studying Stuart's Grammar; syntax.

The second class contains the pupils of the third and fourth classes, studying the elements of the same book.

The students of the first regular class, both German and Spanish, receive each three hours during the week, the others no more than two hours. Total number of students receiving instruction during twenty-five hours per week, eighty-one.

Very respectfully, your obedient servant,

Rudolph Wipprecht,
Professor of Modern Languages.

REPORT OF THE SURGEON.

Prof. L. L. McInnis, Chairman of Faculty:

SIR—In compliance with your request, I have the honor to submit my report as Surgeon for the past three months, together with recommendations as to the needs of the hospital and the enforcement of sanitary regulations at the College. For the first six weeks of the session the hospital was occupied by Professor Brunk's family, and I was compelled to treat the sick in their rooms. There were no cases of serious sickness during that time however, and aside from the extra work devolving upon the Surgeon, very little inconvenience arose from being deprived of the use of the hospital. There has been about the usual amount of sickness since the session opened, none of the cases being of a very serious nature. In the matter of hospital attendance, I regret to say that much improvement could be made. It is a matter of great importance that a suitable person be employed as nurse. The comfort of the sick, to say nothing of their chances of recovery, depends more upon good nursing than upon medical treatment, and a physician who is compelled to treat cases without the assistance of a good nurse, labors under serious disadvantages. Every facility should be provided for the comfort of cadets when sick, and questions of economy should not stand in the way. With reference to the furniture of the hospital I would respectfully suggest that a better quality of bedsteads be provided, as those now in use are very much out of repair. The table ware now in use at the hospital is much worn and presents a very uninviting aspect to a sick person. A closet or safe, in which to keep the table ware, protected from dust and fly specks, is much needed, and a dish pan and additional towels are needed, in order that the table ware may be kept clean. With reference to the sanitary condition of the College, I would recommend a thorough system of drainage. Slops from the mess hall and barracks should not be emptied near the buildings, and in this connection I would say that the condition of things in rear of the mess hall are not what they should be.

The bath house should be kept in condition for use, and arrangements for supplying hot water for bathing purposes should be made, so that cadets could bathe during cold weather. Filters should be provided for the cisterns and frequently changed, in order that the drinking water might be kept pure; as it is a well established fact that diseases are often produced by drinking water containing organic matter. Great care should be taken to secure wholesome and well cooked food for cadets, and there should be some limit to the amount furnished, as overeating is a fruitful source of disease. A suitable refrigerator should be provided for preserving meats during warm weather, as I am satisfied that the present method of keeping meat in contact with melting ice renders it unwholesome. Being fully satisfied that much of the sickness at the College could be prevented by a strict enforcement of sanitary regulations, I earnestly recommend the adoption of the above suggestions.

Respectfully,
J. D. READ, M. D.,
Surgeon A. and M. College.

December 1, 1888.

TABULAR STATEMENTS.

EXHIBIT A.

Inventory of College Property.

Donated to the State by Brazos County:		
Two thousand four hundred and sixteen acres of land	$16,912 00	
One steward's residence	1,000 00	
		$17,912 00
Improvements made prior to 1876, when College was opened:		
One main college building, 151½x60 feet, brick, four stories	$100,000 00	
One steward's hall and dormitory, 91x39 feet, three stories, brick One residence attached to steward's hall, 40x30 feet, four stories	35,000 00	
One stable and barn, 18x30 feet, frame	1,500 00	
Nine cisterns, brick, underground	1,800 00	
Five professors' residences	15,000 00	
Plank fence and cedar posts, enclosing college campus, 161 acres	500 00	
		153,800 00
Improvements made from October, 1876, to January 1, 1887:		
Two story frame building, 84x34 feet, wood working shop	$4,000 00	
Two story frame building, farm house	1,000 00	
One story frame building, for employes	500 00	
Seven underground cisterns, brick	1,400 00	
Bath house, sixteen rooms	300 00	
Oil house	100 00	
Fence, plank and wire, small pasture, forty-six acres	100 00	
Telephone lines, college to Bryan, five miles	250 00	
Brick shop, 80x40 feet, iron working	5,000 00	
Store room mess hall, with cellar	3,500 00	
Bakery	500 00	
Cattle shed	500 00	
Large barn	2,500 00	
Fences, pasture, east of college, 461 acres	1,500 00	
Fences, pasture, east of Houston and Texas Central railway, 850 acres	2,000 00	
Two tanks in pastures	500 00	
Piggery	500 00	
		23,150 00
Improvements made since January 1, 1887:		
Pfuffer hall, 112x46 feet, two stories, brick	$11,500 00	
Hospital, one story, frame	2,000 00	
Farm house, one story, frame	1,300 00	
Creamery building and cistern	1,300 00	
Propagating and green house, brick	600 00	
Blacksmith shop, brick	600 00	
Seven underground cisterns	1,500 00	
Two frame servants houses	400 00	
Three silos	1,500 00	
Austin hall, two story, 102x46, brick	11,000 00	
Two professors' cottages, frame	3,200 00	
Fences, two pastures, west of Houston and Texas Central railwoy, 800 acres	1,500 00	
Fences, stock lots	500 00	
Addition to barn and stables	1,250 00	
Addition to cattle shed	250 00	
Large cattle shed	500 00	
Two employes' cottages	400 00	
		39,300 00
Total permanent improvements		$234,162 00

EXHIBIT A—continued.

Inventory of College Property.

EQUIPMENT.		
Mathematical department		$315 00
Language department		104 50
English		87 00
Library books, etc		4,704 97
Improvement of campus—pair of mules, wagon and tools		603 00
Drawing department		301 10
Agricultural Department:		
Seven work animals	$665 00	
Five Holestein-Freisian cattle	995 00	
Four Galloway cattle	675 00	
One Creole cow	50 00	
One Jersey bull	60 00	
Twenty-two grade Galloway-Holstein cattle	515 00	
One hundred and thirty-six stock cattle	2,906 00	
Six thoroughbred hogs	60 00	
Twenty-seven corn bred and grade hogs	182 00	
Total	$6,108 00	
From produce	1,374 00	
From implements, boiler, engine and tools	9,081 70	
One half interest in creamery	563 10	
		17,126 80
Mechanical Department:		
Tools and machinery	$6,729 85	
Section room furniture	85 00	
		6,814 85
Chemistry and Minerology Department:		
Chemical apparatus		4,168 65
Civil Engineering and Physics Department:		
Civil engeering apparatus	$2,277 76	
Physical apparatus	943 70	
		3,221 46
Agricultural Experiment Station:		
Machinery at barn	$1,285 00	
Live stock	2,855 00	
Forage	1,163 00	
Fertilizer	125 00	
Implements	210 30	
Drainage	423 00	
Creamery, one-half interest	563 10	
Meteorological apparatus	125 85	
Office furniture	251 00	
		7,001 25
Mess hall furniture		3,987 88
Hospital furniture		114 25
Office and chapel furniture		1,165 50
Furniture, officers and students		3,484 14
Museum		177 90
Veterinary department		1,018 92
Horticultural department		656 60
Book store, text books		1,000 00
Total equipment		$67,045 00

Total permanent improvements	$234,162 00
Total equipment	67,045 00
Grand total	$301,207 00

Detailed inventories of all property of the college in the several departments are on file in this office, as required by resolution of the Board of Directors.

EXHIBIT B.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Jan. 15	579	Bookstore	Express	S. Hoffman	$2 35
.. 15	580	Maintenance	Chimneys	Ripley Kimball	11 00
.. 15	581	Bookstore	Express	S. Hoffman	2 30
.. 15	582	Agricultural Department	Tools	W. Koppe	27 09
.. 17	583	Improvement of campus	Trees	Wm. Watson	50 00
.. 17	584	Library	Books	W. H. Wiley	9 00
.. 17	585	Library	Books	W. D. McDonald & Co	6 00
.. 17	586	Library	Paper	Journal of Commerce Company	1 50
.. 19	587	W. R. Manning	Refunded	W. R. Manning	30 00
.. 25	588	P. C. Vines	Refunded	P. C. Vines	5 00
.. 26	589	J. W. Harvey	Refunded	J. W. Harvey	21 50
.. 27	590	Expense	Box rent	Bryan postoffice	1 00
.. 27	591	Agricultural Department	Lumber	Garth, Griffiths & Co	4 45
.. 27	592	Mechanical Department	Supplies	G. W. Norrell	1 25
.. 27	593	Mechanical Department	Material	Garth, Griffiths & Co	6 75
.. 27	594	Maintenance	Groceries	J. W. English	37 00
.. 27	595	Hennery	Lumber	Fulkerson & Lawrence	13 75
.. 27	596	Expense	Traveling expenses	L. L. McInnis	13 77
.. 27	597	Maintenance	Laundry	Houston Steam Laundry	127 95
.. 27	598	Library	Paper	David Williams	4 50
.. 27	599	Bookstore	Books	Cowperthwaite & Co.	6 00
.. 27	600	Library	Paper	Perry, Mason & Co	1 25
. 27	601	Chemical Department	Supplies	Eisner & Armend	2 48
.. 27	602	Bookstore	Books	W. Y. Scarff & Co	7 20
.. 27	603	Agricultural Department	Freight	A. B. Farquhar	15 44
.. 27	604	Library	Paper	Popular Science News	1 00
.. 27	605	Bookstore	Books	Williams & Brown	55 20
.. 27	606	Bookstore	Books	Ivison, Blakeman & Taylor	7 50
.. 27	607	Maintenance	Supplies	W. Koppe	17 70
.. 27	608	Hennery	Hardware	W. Koppe	2 45
.. 27	609	Mechanical Department	Supplies	W. Koppe	6 40
.. 27	610	Maintenance	Gasoline	Waters Pierce Oil Co	198 32
.. 27	611	Hennery	Express	Sam Hoffman	9 72
.. 27	612	Agricultural Department	Express	Pacific Express Company	70
.. 27	613	Mechanical Department	Express	Pacific Express Company	1 75
.. 27	614	Mechanical Department	Brickwork	Peter Winter	8 00
.. 27	615	Repairs	Brickwork	Peter Winter	3 25

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Jan. 27	616	Hennery	Incubator	James Rankin	$108 00
.. 28	617	Maintenance	Groceries	J. W. English	6 80
.. 31	618	E. S. Rochelle	Refunded	E. S. Rochelle	5 00
Feb. 2	619	W. B. Stedman	Refunded	W. B. Stedman	5 00
.. 2	620	Salaries	Assistant in mechanics	F. E. Girsecke	50 00
.. 2	621	Salaries	Assistant in agriculture	D. Adriance	50 00
.. 2	622	Salaries	Assistant in English	W. B. Philpott	60 00
.. 2	623	Medical attendance	Surgeon	J. D. Read	85 00
.. 2	624	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 2	625	Salaries	Assistant mathematician	Guy Carleton	30 00
.. 2	626	Salaries	Assistant chemist	W. Wippucht	66 66
. 2	627	Salaries	Foreman shop	A. Harbers	60 00
.. 2	628	Maintenance	Janitor	O. Boehme	20 00
.. 2	629	Maintenance	Janitor	C. Seibeat	20 00
.. 2	930	Agricultural Department	Foreman farm	F. Zimmerman	40 00
.. 2	631	Agricultural Department	Student labor	Wess & Stricklin	13 00
.. 2	632	Agricultural Department	Farm pay roll	G. W. Curtis	48 00
.. 2	633	Agricultural Department	Seed	W. H. Webb	3 30
.. 2	634	Mechanical Department	Express	Sam Hoffman	35
.. 2	635	Expense	Express	Sam Hoffman	40
.. 2	636	Chemical Department	Hardware	W. Koppe	2 30
. 7	637	Maintenance	Laundry	Houston Steam Laundry	93 75
.. 7	639	Maintenance	Hardware	W. Koppe	72
.. 7	638	Improvement of campus	Repairs	T. P. Wooten & Son	50
.. 7	640	Bookstore	Books	J. B. Lippincott & Co.	3 20
.. 7	641	Library	Paper	North American Review	5 00
.. 7	642	Maintenance	Groceries	J. W. English	5 10
.. 7	643	Improvement of campus	Supplies	J. W. English	40
.. 7	644	Advertising and printing	Printing	Brazos Pilot	7 00
.. 7	645	Bookstore	Text books	H. Waddell	3 50
.. 7	646	Bookstore	Text books	D. C. Heath & Co.	10 80
. 7	647	Repairs	Glass	Jas. Bute	6 60
.. 7	648	Maintenance	Drumster	J. R. Fisk	20 00
.. 7	649	Maintenance	Beef	H. B. Stoddard	91 47
.. 7	650	Maintenance	Groceries	J. W. English	6 60
.. 7	651	Maintenance	Steward	B. Sbisa	166 66
. 7	652	Maintenance	Supplies	B. Sbisa	396 67

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Feb. 9	653	Bookstore	Books	D. Appleton & Co.	$13 08
.. 9	654	Maintenance	Groceries	Carson, Sewall & Co.	135 21
.. 9	655	Maintenance	Groceries	J. W. English	25 90
.. 9	656	Mechanical Department	Hardware	Simmons Hardware Company	5 30
.. 9	657	Salaries	Agents' board	T. M. Scott	62 50
.. 9	658	Agricultural Department	Seeds	W. H. Webb	4 60
.. 9	659	Bookstore	Books	J. J. Postoriza	1 50
.. 9	660	Agricultural Department	Lumber	Garth, Griffiths & Co	2 97
.. 10	661	Maintenance	Flour	Empire Mills	99 65
.. 10	662	Maintenance	Groceries	J. W. English	5 58
.. 11	663	Improvement of campus	Labor	Tom Cavitt	15 00
.. 11	664	Expense	Stationery	L. L. McInnis	6 05
.. 11	666	Agricultural Department	Harness	Hanway & Son	7 50
.. 11	667	Maintenance	Glassware	C. E. Clarke Notion Company	7 85
.. 11	665	Bookstore	Express	Pacific Express Company	85
.. 11	668	Agricultural Department	Labor	Adam Haley	4 00
.. 14	669	Bookstore	Text books	Jno. Wiley & Sons	6 52
.. 19	670	Maintenance	Oil	Waters Pierce Oil Company	15 82
.. 19	671	Bookstore	Drawing supplies	J. W. Queen & Co.	17 44
.. 19	672	Hennery	Supplies	J. W. English	1 75
.. 19	673	Maintenance	Groceries	J. W. English	9 19
.. 19	674	Expense	File boxes	Globe File Company	22 42
.. 19	675	Agricultural Department	Labor	C. A. Carson	18 12
.. 22	676	Agricultural Department	Vines	S. Kujawski	12 70
.. 22	677	Agricultural Department	Supplies	G. W. Norrell	40 35
.. 22	678	Gas	Gas machine	Matthews & Hall	375 00
.. 22	679	Maintenance	Labor	Jesse Parker	40 00
.. 22	680	Agricultural Department	Labor	Carson Bros	3 75
.. 28	681	R. E. George	Refunded	R. E. George	5 00
.. 28	682	Maintenance	Oil	Waters Pierce Oil Company	14 00
.. 28	683	Maintenance	Groceries	Carson, Sewall & Co.	12 60
.. 28	684	Expense	Telegrams	L. L. McInnis	1 70
.. 28	685	Hennery	Supplies	W. H. Webb	1 60
.. 28	686	Maintenance	Groceries	J. W. English	27 75
.. 28	687	Bookstore	Text books	MacMillan & Co.	3 58
.. 28	688	Hennery	Supplies	B. Ibisa	34 10
.. 28	689	Expense	Traveling expenses	L. L. McInnis	9 25

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Feb. 28	690	S. E. Flake	Refunded	S. E. Flake	$4 00
.. 28	691	Repairs	Brick	Robb & Johnson	48 00
.. 28	692	Mechanical Department	Expense	Pacific Express Company	45
.. 28	693	Bookstore	Text books	Van Antwerp, Bragg & Co.	58 25
March 1	694	Maintenance	Laundry	Houston Steam Laundry	139 02
.. 1	695	Repairs	Freight	S. Hoffman	12 00
.. 1	696	Agricultural Department	Freight	S. Hoffman	6 09
.. 1	697	Expense	Freight	S. Hoffman	1 03
.. 1	698	Repairs	Lumber	Garth, Griffiths & Co.	17 80
.. 1	699	Medical attendance	Surgeon	J. D. Reed	85 00
.. 1	700	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 1	701	Salaries	Assistant agriculturalist	D. Adriance	50 00
.. 1	702	Salaries	Foreman shop	A. Harbers	60 00
.. 1	703	Salaries	Assistant in mechanics	F. E. Geiscke	50 00
.. 1	704	Salaries	Assistant in English	W. B. Philpott	60 00
.. 1	705	Salaries	Assistant in chemistry	W. Wipprecht	66 66
.. 3	706	Agricultural Department	Labor	C. A. Carson	4 25
.. 3	708	Agricultural Department	Lumber	Garth, Griffiths & Co.	41 04
.. 3	707	Agricultural Department	Repairs	T. B. Wooten & Son	2 40
.. 3	709	Maintenance	Hardware	W. Koppe	2 80
.. 3	710	Expense	Postage	S. Hoffman	44 70
.. 4	711	J. F. Green	Refunded	J. F. Green	4 25
.. 4	712	L. B. Camp	Refunded	L. B. Camp	4 50
.. 4	713	W. D. Burks	Refunded	W. D. Burks	5 00
.. 4	714	Agricultural Department	Tools	W. Koppe	15 37
.. 4	715	Agricultural Department	Seeds	W. H. Webb	12 07
.. 4	716	Maintenance	Groceries	J. W. English	3 90
.. 4	717	Mechanical Department	Supplies	J. W. Queen & Co.	2 14
.. 4	718	Printing	Advertising	Galveston News	5 00
.. 4	719	Mechanical Department	Hardware	W. Koppe	10 18
.. 4	720	Mechanical Department	Shaper	Pond Machine and Toole Co.	330 97
.. 7	721	Agricultural Department	Foreman farm	F. Zimmerman	40 00
.. 7	722	Agricultural Department	Farm pay roll	G. W. Curtis	80 40
.. 7	723	Agricultural Department	Student labor	Wess & Stricklin	15 60
.. 7	724	C. E. Martin	Refunded	C. E. Martin	4 50
.. 7	725	Expense	Traveling expenses	A. J. Rose	11 35
.. 7	726	W. M. Manly	Refunded	W. M. Manly	4 90

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886-87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. March 7	727	J. S. Miles	Refunded	J. S. Miles	$4 75
.. 7	728	Maintenance	Steward	B. Sbisa	166 66
.. 7	729	Maintenance	Supplies	B. Sbisa	342 36
.. 7	730	Maintenance	Drummer	J. R. Fisk	20 00
.. 7	731	Salaries	Agricultural Board	T. M Scott	62 50
.. 7	732	Maintenance	Beef	H. B. Stoddard	48 79
.. 7	733	Mechanical Department	Lumber	Garth, Griffiths & Co	4 58
.. 7	734	Maintenance	Groceries	J. W. English	127 01
.. 7	735	Maintenance	Oil	Waters Pierce Oil Co	3 00
.. 17	736	Improvement of campus	Labor	Joseph Liposo	10 00
.. 19	737	Hennery	Supplies	B. Sbisa	44 15
.. 19	738	Maintenance	Flour	Empire Mills	57 00
.. 19	739	Maintenance	Groceries	J. W. English	37 06
.. 19	740	Mechanical Department	Lumber	Garth & Wash	1 86
.. 19	741	Repairs	Hardware	J. S. Brown Hardware Co	85
.. 19	742	Library	Books	A. C. McClevy & Co	4 20
.. 19	743	Maintenance	Freight	Texas Mill and Elevator Co	2 75
.. 19	744	Maintenance	Laundry	Houston Steam Laundry	132 78
.. 19	745	Agricultural Department	Lumber	Garth, Griffiths & Co	8 16
.. 19	746	Agricultural Department	Labor	F. Zimmerman	7 25
.. 19	747	Expense	Traveling expenses	C. C. Ganett	19 75
.. 19	748	Expense	Traveling expenses	L. L. McInnis	14 30
.. 19	749	Expense	Traveling expenses	T. M. Scott	13 53
.. 19	750	Expense	File boxes	Globe File Co	20 92
.. 19	751	Improvement of campus	Labor	Tom Cavitt	15 00
.. 19	752	Improvement of campus	Trees	J. G. Session	20 60
.. 22	753	Maintenance	Labor	Jesse Parker	20 00
.. 22	754	Maintenance	Groceries	J. W. English	20 82
.. 25	755	Mechanical Department	Freight	Sam Hoffman	12 34
.. 28	756	Agricultural Department	Building fence	J. H. Saber, Jr	96 45
.. 31	757	Printing	Advertising	Texas Farmer	5 00
.. 31	758	Expense	Hardware	J. S. Brown Hardware Co	3 40
.. 31	759	Maintenance	Oil	Waters Pierce Oil Co	2 00
.. 31	760	Maintenance	Groceries	J. W. English	47 79
.. 31	761	Maintenance	Lamp chimneys	Ripley & Bronson	12 25
.. 31	762	Mechanical Department	Lumber	A. Behring & Bro	22 26
.. 31	763	Mechanical Department	Supplies	G. W. Norrell	17 20

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
March 31	764	Maintenance	Flour	Texas Mill and Elevator Co	$54 50
.. 31	765	Agricultural Department	Labor	J. H. Alsworth	1 00
.. 31	766	Agricultural Department	Supplies	Hamvoy & Son	1 20
.. 31	767	Agricultural Department	Supplies	Buford & Hall.	1 80
.. 31	768	Bookstore	Text books	D. C. Heath & Co	21 85
.. 31	769	Salaries	Assistant Mathematician	R. F. Smith	75 00
.. 31	770	Maintenance	Janitor	C. Siebert	20 00
.. 31	771	Maintenance	Janitor	O. Boehme	20 00
April 1	772	Bookstore	Express	S. Hoffman	55
.. 1	773	Maintenance	Express	S. Hoffman	1 20
.. 1	774	Chemical Department	Express	S. Hoffman.	2 00
.. 1	775	Salaries	Foreman shop	A. Harbers	60 00
.. 1	776	Salaries	Assistant in English	W. B. Philpott	60 00
1	777	Salaries	Assistant in mechanics	F. E. Geisecke	50 00
.. 1	778	Salaries	Assistant in mathematics	Guy Carleton	25 00
.. 1	779	Salaries	Assistant in agriculture	D. Adriance	50 00
.. 1	780	Salaries	Assistant in chemistry	W. W. Wippricht	66 66
.. 1	781	Bookstore	Text books	D. Appleton & Co	16 00
.. 1	782	Maintenance	Groceries	J. W. English	96 87
.. 1	783	Medical attendance	Surgeon	J. D. Read	85 00
.. 1	784	Agricultural Department	Supplies	W. J. Moore	1 50
.. 2	785	Bookstore	Express	Pacific Express Company	2 70
.. 2	786	Expense	Express	Pacific Express Company	70
.. 4	787	Repairs	Brickmason	Peter Winter	30 00
.. 4	788	C. L. Wurzbach	Refunded	C. L. Wurzbach	4 75
.. 4	789	C. A. Long	Refunded	C. A. Long	5 00
. 4	790	Agricultural Department	Foreman farm	J. H. Alsworth	40 00
.. 4	791	Expense	Traveling expenses	W. R. Cavitt	92 05
.. 5	792	Agricultural Department	Farm pay roll	G. W. Curtis	66 60
.. 5	793	Agricultural Department	Student labor	Wess & Stricklin	18 10
.. 5	794	Agricultural Department	Seed	Halloway & Co	14 74
.. 5	795	Cancelled			
.. 5	796	Agricultural Department	Gardener	F. Zimmerman	40 00
.. 5	797	Agricultural Department	Repairs to farm implements	T. P. Wooten & Son	5 70
.. 5	798	Agricultural Department	Express	Pacific Express Company	65
.. 5	799	Maintenance	Groceries	Chance Bros.	12 60
.. 5	800	Expense	Supplies	G. W. Norrell	3 05

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. April 5	801	Expense	Box rent	Bryan postoffice	$1 00
... 5	802	Maintenance	Laundry	Houston Steam Laundry	125 22
... 5	803	Library	Books	W. D. McDonald & Co	6 00
... 5	804	Military Department	Express	Pacific Express Co	9 40
... 5	805	Maintenance	Drummer	J. R. Fish	20 00
... 7	806	Maintenance	Janitor	C. Siebert	20 00
... 7	807	Maintenance	Janitor	O. Boehme	30 00
... 7	808	Maintenance	Supplies	B. Sbisa	367 71
... 7	809	Maintenance	Steward	B. Sbisa	166 66
... 7	810	Maintenance	Beef	H. B. Stoddard	104 86
... 8	811	Maintenance	Groceries	J. W. English	14 33
... 8	812	Salaries	Agricultural Board	T. M. Scott	62 50
... 9	813	Bookstore	Text books	Universal Publishing Co	2 70
... 9	814	Chemical Department	Apparatus	J. W. Queen & Co	4 10
... 9	815	Maintenance	Hardware	W. Koppe	6 25
... 9	816	Hennery	Hardware	W. Koppe	5 55
... 9	817	Hennery	Supplies	B. Sbisa	30 14
... 9	818	Improvement of campus	Labor	T. Cavitt	10 00
... 9	819	Cancelled	......	...	
... 12	820	J. T. McDaniel	Refunded	J. T. McDaniel	10 00
... 12	821	Agricultural Department	Seed	T. J. McQueen & Co	56 50
... 12	822	Agricultural Department	Labor	Peter Saevicky	14 00
... 12	823	Agricultural Department	Wire, etc	W. Koppe	66 30
... 12	824	Maintenance	Gasoline	Waters Pierce Oil Co	94 99
... 12	825	Mechanical Department	Hardware	W. Koppe	2 75
... 12	826	Mechanical Department	Express	Pacific Express Co	40
... 12	827	W. W. Carson	Refunded	H. H. Dinwiddie	3 65
... 12	828	Agricultural Department	Oats and bran	Texas Mill and Elevator Co	224 45
... 12	829	Repairs	Paints	W. H. Webb	86 00
... 12	830	Mechanical Department	Lumber	A. Behring & Bro	1 00
... 12	831	Bookstore	Text books	McMillan & Co	4 64
... 12	882	Repairs	Leather	Hamvay & Son	1 00
... 18	833	Maintenance	Groceries	J. W. English	19 20
... 18	834	Maintenance	Flour	Texas Mill and Elevator Co	54 50
... 18	835	Mechanical Department	Lumber	Garth & Nash	7 38
... 18	836	Printing	Blanks	J. J. Pastoriza	7 50
... 18	837	Bookstore	Text books	Ivison, Blakeman & Co	6 61

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.		No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.						
April	21	838	Library	Assistant librarian	L. E. Allen	$25 00
..	22	839	Agricultural Department	Labor	Jos. Wossnik	1 00
..	23	810	Mechanical Department	Freight	Missouri Pacific Railway	2 77
..	23	841	Agricultural Department	Labor	Jas. Dobrovolney	1 30
..	26	842	Expense	Stationery	H. H. Dinwiddie	4 20
..	26	843	Maintenance	Groceries	Chance Bros	6 30
..	26	844	Maintenance	Groceries	J. W. English	29 70
..	26	845	Maintenance	Laundry	Houston Steam Laundry	124 53
..	26	846	Expense	Traveling expenses	A. J. Rose	13 40
May	2	847	Agricultural Department	Foreman farm	J. H. Alsworth	40 00
..	2	848	Maintenance	Meal	L. A. Scott	14 45
..	2	849	Maintenance	Groceries	J. W. English	11 25
..	2	850	Maintenance	Groceries	R. J. Ford	9 45
..	2	851	Mechanical Department	Supplies	G. W. Norrell	14 70
..	2	852	Agricultural Department	Hardware	W. Koppe	19 95
..	2	853	Agricultural Department	Repairing farm implements	Wooten & Son	11 30
..	2	854	Expense	Lumber	A. Behring & Bro	3 31
..	2	855	Military Department	Supplies	Chief Ordnance U. S. A	7 50
..	2	856	Salaries	Assistant mathematician	R. F. Smith	75 00
..	2	857	Military Department	Supplies	C. H. Clark U. S. Ordnance	65 22
..	2	858	Agricultural Department	Labor	Adam Haley	4 10
..	2	859	Agricultural Department	Labor	Calvin Morris	6 25
..	2	860	Salaries	Foreman shop	A. Harbers	60 00
..	2	861	Salaries	Assistant in mechanics	F. E. Girsecke	50 00
..	2	862	Salaries	Assistant chemist	W. Wippricht	66 66
..	2	863	Salaries	Assistant in English	W. B. Philpott	60 00
..	2	864	Salaries	Assistant mathematician	Guy Carleton	30 00
..	2	865	Salaries	Assistant in agriculture	D. Adriance	50 00
..	3	866	Agricultural Department	Labor	A. Gozvzki	5 25
..	4	867	Expense	Stationery	A. D. McConnico	1 80
..	4	868	Medical attendance	Surgeon	J. D. Reed	85 00
..	4	869	Maintenance	Drummer	J. R. Fisk	20 00
..	4	870	Agricultural Department	Farm pay roll	G. W. Curtis	90 00
..	4	871	Maintenance	Beef	H. B. Stoddard	117 94
..	7	872	Agricultural Department	Leather	Hanway & Son	1 00
..	7	873	Agricultural Department	Repairs	Wooten & Son	3 15
..	7	874	Agricultural Department	Supplies	G. W. Norrell	50

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. May 7	875	Maintenance	Groceries	J. W. English	$170 25
7	876	Pfeuffer Hall	Traveling expenses.	R. H. Whitlock.	20 82
9	877	Maintenance	Steward	B. Sbisa	166 66
9	878	Maintenance	Supplies.	B. Sbisa	388 29
9	879	Maintenance	Flour	Texas Mill and Elevator Co.	59 95
10	880	Mechanical Department	Lumber	Garth & Nash	3 36
13	881	Expense	Exchange and interest.	First National Bank	33 93
13	881½	Hennery	Labor	B. Sbisa	20 00
13	882	Salaries	Agricultural Board	T. M. Scott	62 59
13	883	Farm house.	Traveling expenses.	T. M. Scott	9 65
13	884	Agricultural Department	Tools	L. T. Fuller	5 40
13	885	Agricultural Department	Express	Pacific Express Company	25
13	886	Hospital	Traveling expenses	L. L. McInnis	10 95
13	887	Maintenance	Groceries	Chance Bros	3 50
13	888	Maintenance	Groceries	J. W. English	34 76
13	889	Bookstore	Text books	Williams & Brown	5 28
13	890	Bookstore	Express	Wells, Fargo & Co	1 20
13	891	Printing	Stationery	Reynolds & Reynolds	15 40
16	892	Maintenance	Janitor	Carl Seibert	20 00
16	893	Maintenance	Janitor	Otto Boehme	20 00
16	894	Printing	Express	H. J. McNair, agent	2 40
16	895	Agricultural Department	Gardener	F. Zimmerman	40 00
16	896	Agricultural Department	Student labor.	Wess & Stricklin	18 20
16	897	Agricultural Department	Plow	L. T. Fuller	5 00
16	898	Agricultural Department	Repairs	Wooten & Son	1 00
16	899	Agricultural Department	Supplies	J. W. English	5 60
16	900	Agricultural Department	Supplies	G. W. Norrell.	75
16	901	Maintenance	Ice	Bryan Ice Co.	12 38
16	902	Maintenance	Groceries	J. W. English.	27 86
17	903	Expense	Express	B. Sbisa	2 40
17	904	Maintenance	Express	B. Sbisa	3 60
17	905	W. N. Fleming	Refunded	W. N. Fleming	4 75
17	906	Maintenance	Laundry	Houston Steam Laundry	122 30
17	907	Agricultural Department	Freight	Deere, Mansur & Co.	73
18	908	Mechanical Department	Supplies	G. W. Norrell	2 63
18	909	Maintenance	Meal	L. A. Scott	11 90
18	910	Agricultural Department	Supplies	G. W. Norrell	1 30

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. May 18	911	Pfeuffer hall	Brick	Jno. Robb	$75 00
18	912	Bookstore	Blanks	Brazos Pilot	3 50
18	913	Repairs	Supplies	G. W. Norrell	5 40
18	914	Mechanical Department	Supplies	W. Koppe	20 15
18	915	Mechanical Department	Supplies	G. W. Norrell	1 25
18	916	Improvement of campus	Labor	Jos. Lepaso	26 25
18	917	C. F. Adriance	Refunded	C. F. Adriance	4 70
20	918	Pfeuffer hall	Brick	Jno. Robb	50 00
21	919	Maintenance	Groceries	J. W. English	9 73
21	920	Agricultural Department	Lumber	Garth & Nash	54 40
21	921	Expense	Exchange	First National Bank	25
23	922	Salaries	Assistant in English	W. B. Philpott	60 00
23	923	Medical attendance	Surgeon	J. D. Read	85 00
23	924	Salaries	Assistant mathematician	R. F. Smith	75 00
23	925	Salaries	Assistant in chemistry	W. Wippricht	66 66
23	926	Salaries	Assistant agriculturalist	D. Adriance	50 00
23	927	Salaries	Assistant in mechanics	F. E. Geiscke	50 00
23	928	Salaries	Assistant mathematician	Guy Carleton	30 00
23	929	Salaries	Foreman shop	A. Harbers	60 00
23	930	Library	Assistant librarian	L. E. Allen	25 00
26	931	Bookstore	Text books	A. L. Shipman & Sons	6 00
26	932	Maintenance	Labor	Jesse Parks	40 00
26	933	Expense	Stationery	H. H. Dinwiddie	1 10
26	934	Agricultural Department	Supplies	G. W. Norrell	2 60
26	935	Agricultural Department	Supplies	L. T. Fuller	5 20
26	936	Maintenance	Groceries	J. W. English	5 28
26	937	Maintenance	Oil	Waters Pierce Oil Company	4 00
26	938	Pfeuffer hall	Brick	Jno. Robb	105 00
26	939	Pfeuffer hall	Brick	Jno. Robb	55 00
27	940	Repairs	Painting	W. A. Dodson	6 00
27	941	W. Powors	Refunded	W. Powors	4 75
28	942	Repairs	Paints	G. W. Norrell	2 85
28	943	Maintenance	Flour	Texas Mill and Elevator Co	40 70
28	944	Printing	Blanks	Texas Blade	4 00
28	945	Salaries	Agents' board	T. M. Scott	62 50
28	946	Agricultural Department	Supplies	L. T. Fuller	3 74
28	947	Maintenance	Groceries	Carson, Sewall & Co	197 38

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1886–87.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. May 30	948	Agricultural Department	Express	Pacific Express Company	$0 80
.. 30	949	Military Department	Express	Pacific Express Company	1 00
.. 30	950	Agricultural Department	Foreman farm	J. H. Alsworth	40 00
.. 30	951	Agricultural Department	Gardener	F. Zimmerman	41 50
.. 30	952	Agricultural Department	Farm pay roll	G. W. Curtis	88 00
.. 30	953	Maintenance	Beef	H. B. Stoddard	151 97
.. 30	954	Maintenance	Janitor	O. Boehme	20 00
.. 30	955	Maintenance	Janitor	C. Siebert.	24 00
.. 30	956	Maintenance	Steward	B. Sbisa.	166 66
.. 30	957	Deposit for damages	Refunded to students	L. L. McInnis	463 80
.. 30	958	Maintenance	Supplies.	B. Sbisa	395 71
.. 80	959	Maintenance	Drummer.	J. R. Fisk	20 00
.. 30	960	Hennery.	Labor	B. Sbisa	20 00
.. 30	961	Maintenance	Laundry.	Houston Steam Laundry	123 15

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. June 13	1	Maintenance	Beef	H. B. Stoddard	$51 60
.. 13	2	Expense	Postage	W. C. Boyett	4 60
.. 14	3	Maintenance	Gasoline	Waters Pierce Oil Co	164 20
.. 14	4	Maintenance	Table linen	Sanger Bros	36 30
.. 14	5	Agricultural Department	Freight	Rawson Manufacturing Co	1 00
.. 14	6	Pfeuffer hall	Advertising	Galveston News	29 75
.. 15	7	Horticultural Department	Lawn mower	G. M. Dilley & Son	19 00
.. 15	8	Maintenance	Hardware	J. S. Brown Hardware Co	1 22
.. 15	9	Pfeuffer hall	Architect	E. T. Heiner	267 50
.. 15	10	Maintenance	Groceries	J. W. English	11 99
.. 15	11	Maintenance	Ice	Bryan Ice Co	45 22
.. 15	12	Horticultural Department	Vines	E. Kellner	3 00
.. 15	13	Agricultural Department	Painting	W. A. Dodson	1 50
.. 15	14	Mechanical Department	Supplies	G. W. Norrell	3 24
.. 15	15	Cancelled			
.. 15	16	Pfeuffer hall	Brick	Jno. Robb	200 00
.. 15	17	Pfeuffer hall	Brick	Jno. Robb	415 00
.. 15	18	Hospital	Brick	Jno. Robb	9 00
.. 15	19	Printing	Advertisement	Brazos Pilot	21 25
.. 15	20	Agricultural Department	Supplies	G W. Norrell	25
.. 15	21	Agricultural Department	Hardware	W. Koppe	1 65
.. 15	22	Pfeuffer hall	Hardware	W. Koppe	5 53
.. 18	23	Pfeuffer hall	Sand	A. Smart	18 75
.. 18	24	Pfeuffer hall	Sand	J. S. Pinkerton	13 33
.. 18	25	Pfeuffer hall	Sand	J. R. Boykin	11 00
.. 18	26	Pfeuffer hall	Sand	J. R. Vannay	13 00
.. 22	27	Maintenance	Supplies	B. Sbisa	90 10
.. 22	28	Pfeuffer hall	Sand	A. Smart	11 00
.. 22	29	Pfeuffer hall	Sand	J. R. Vannay	10 87
.. 22	30	Pfeuffer hall	Sand	J. R. Boykin	6 00
.. 22	31	Pfeuffer hall	Sand	J. S. Pinkerton	4 88
.. 22	32	Agricultural Department	Telegrams	Western Union Telegraph Co	2 10
.. 25	33	Pfeuffer hall	Sand	L. F. Battle	7 00
.. 27	34	Pfeuffer hall	Contractors	Garth & Wash	2,500 00
.. 25	35	Pfeuffer hall	Sand	O. W. Prescott	6 75
July 1	36	Agricultural Department	Labor	L. E. Calby,	18 00
.. 1	37	Agricultural Department	Labor	Harry Gregory	15 30

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
July 4	38	Pfeuffer hall	Labor	Jos. Geromonski	$13 75
4	39	Agricultural Department	Express	Pacific Express Company	30
5	40	Salaries	Agricultural Board	T. M. Scott	62 50
5	41	Salaries	Foreman shop	A. Harbers	60 00
5	42	Salaries	Foreman farm	J. H. Alsworth	66 66
5	43	Agricultural Department	Labor	J. Cruse	18 00
5	44	Agricultural Department	Student labor	H. Hess	13 40
5	45	Agricultural Department	Labor	T. Cavitt	11 50
14	46	Farm house	Contractors	Garth & Nash	400 00
14	47	Hospital	Contractors	Garth & Nash	900 00
14	48	Pfeuffer hall	Contractors	Garth & Nash	1,600 00
14	49	Pfeuffer hall	Labor	B. Sbisa	130 55
14	50	Pfeuffer hall	Sand	L. F. Battle	8 25
15	51	Salaries	Gardener	F. Zimmerman	50 00
15	52	Expense	Postage	W. C. Boyett	8 45
15	53	Pfeuffer hall	Freight	W. C. Boyett	25
15	54	Maintenance	Beef	W. C. Boyett	70 25
15	55	Printing	Advertising	C. C. Garrett	1 20
15	56	Pfeuffer hall	Traveling expenses	C. C. Garrett	2 15
15	57	Hennery	Labor	A. de Los Rios	20 00
15	58	Maintenance	Steward	B. Sbisa	33 33
15	59	Maintenance	Supplies	B. Sbisa	101 78
15	60	Maintenance	Ice	Bryan Ice Co.	16 41
15	61	Maintenance	Supplies	Hanway & Son	3 00
15	62	Printing	Catalogues	Brazos Pilot	192 90
15	63	Maintenance	Groceries	J. W. English	11 00
15	64	Expense	Traveling expenses	L. L. McInnis	15 15
15	65	Mechanical Department	Supplies	G. W. Norrell	80
15	66	Maintenance	Flour	Texas Mill and Elevator Co	26 00
15	67	Gas	Gas Pipe	Ripley & Bronson	178 86
15	68	Printing	Stationery	Reynolds & Reynolds	4 10
15	69	Library	Subscription	American Journal of Math	5 00
15	70	Library	Subscription	A. H. Raffe & Co.	24 85
15	71	Maintenance	Oil	Waters Pierce Oil Co.	12 50
15	72	Printing	Stationery	Globe Company	14 00
15	73	Horticultural Department	Freight	G. M. Dilley & Son	1 00
15	74	Maintenance	Groceries	Carson, Sewall & Co.	28 89

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. July 15	75	Expense	Telegrams	Western Union Telegraph Co	$0 90
.. 15	76	Printing	Express	Pacific Express Company	2 50
.. 15	77	Agricultural Department	Supplies	W. Koppe	85
.. 15	78	Expense	Box rent	Bryan postoffice	1 00
.. 15	79	Maintenance	Groceries	J. W. English	6 75
.. 15	80	Agricultural Department	Supplies	J. W. English	2 25
.. 15	81	Mechanical Department	Lumber	Garth & Nash	8 68
.. 15	82	Maintenance	Meal	Garth & Nash	13 70
.. 15	83	Agricultural Department	Repairs	Wooten & Son	5 60
.. 15	84	Agricultural Department	Repairs	Hanway & Son	1 50
.. 15	85	Agricultural Department	Supplies	G. W. Norrell	30
.. 15	86	Pfeuffer hall	Sand	H. S. Lockler	7 25
.. 15	87	Horticultural Department	Labor	Pete Sarrisky	14 00
.. 15	88	Cistern	Labor	John Pomelli	1 00
.. 15	89	Printing	Advertising	Democrat Publishing Company	22 05
.. 21	90	Mechanical Department	Freight	Houston and Texas Central Ry	17 85
.. 21	91	Repairs	Plasterer	O. Laconture	48 00
.. 21	92	Agricultural Department	Labor	G. W. Curtis	15 00
.. 21	93	Repairs	Supplies	G. W. Norrell	4 12
.. 30	94	Horticultural Department	Supplies	J. W. English	40
.. 30	95	Horticultural Department	Supplies	Wooten & Son	2 85
.. 30	96	Agricultural Department	Supplies	W. Koppe	1 00
.. 30	97	Repairs	Hardware	W. Koppe	2 06
.. 30	98	Cisterns	Hardware	W. Koppe	3 00
.. 30	99	Maintenance	Groceries	Carson, Sewall & Co	48 67
.. 30	100	Maintenance	Repairs	Wooten & Son	26 00
.. 30	101	Maintenance	Oil	Waters Pierce Oil Company	3 00
.. 30	102	Printing	Advertising	Dallas Herald	14 00
.. 30	103	Printing	Advertising	Baptist Herald	9 60
.. 30	104	Agricultural Department	Labor	J. H. Alsworth	75
.. 30	105	Printing	Advertising	San Antonio Freie Presse	10 00
.. 30	106	Printing	Advertising	Galveston News	42 38
.. 30	107	Mechanical Department	Supplies	Ripley & Bronson	18 52
.. 30	108	A. and M. conventions	Traveling expenses	L. L. McInnis	17 35
.. 30	109	Agricultural Department	Labor	John Turn	3 75
.. 30	110	Students repairs	Repairs to furniture	Smith Davis Manufacturing Co.	71 85
.. 30	111	Maintenance	Meal	Garth & Nash	15 58

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. July 30	112	Maintenance	Groceries	J. W. English	$2 17
.. 30	113	Expense	Exchange	First National Bank	9 62
.. 30	114	Maintenance	Wood	J. H. Sufer	51 55
.. 30	115	Cisterns	Labor	F. Gilbert	5 00
Aug. 1	116	Agricultural Department	Student labor	H. Ness	20 00
.. 1	117	Agricultural Department	Labor	J. M. Cross	25 50
.. 1	118	Agricultural Department	Horse	W. L. Bringhurst	50 00
.. 2	119	Pfeuffer hall	Sand	W. J. Moore	41 18
.. 4	120	Pfeuffer hall	Contractor	Garth & Nash	1,000 00
.. 4	121	Hospital	Contractor	Garth & Nash	400 00
.. 4	122	Farm house	Contractor	Garth & Nash	200 00
.. 4	123	Maintenance	Beef	W. C. Boyett	7 07
.. 5	124	Maintenance	Beef	W. C. Boyett	47 99
.. 6	125	Cisterns	Labor	F. Gilbert	10 90
.. 8	126	Salaries	Foreman farm	J. H. Alsworth	66 66
.. 8	127	A. and M. conventions	Traveling expenses	G. W. Curtis	19 65
.. 8	128	Cisterns	Labor	G. Geromonski	13 50
.. 8	129	Salaries	Agents board	T. M. Scott	62 50
.. 9	130	Printing	Blanks	Brazos Pilot	18 50
9	131	Maintenance	Steward	B. Sbisa	33 33
.. 9	132	Maintenance	Supplies	B. Sbisa	115 90
.. 9	133	Maintenance	Wood	J. H. Suber	75 30
.. 13	134	Cisterns	Labor	F. Gilbert	19 10
.. 13	135	Maintenance	Labor	F. Gilbert	10 00
.. 13	136	Agricultural Department	Labor	H. Bowser	3 75
.. 13	137	Cisterns	Labor	Chas. Wheeler	20 00
.. 15	138	Cisterns	Labor	Tabok Kauton	1 05
.. 15	139	Bookstore	Express	B. Sbisa	1 80
.. 15	140	Expense	Express	B. Sbisa	1 70
.. 17	141	Printing	Advertising	Tri-weekly Herald	3 50
.. 17	142	Printing	Advertising	Texas Farmer	14 40
.. 17	143	B M. Halbert	Refunded	B. M. Halbert	4 75
.. 17	144	Maintenance	Flour	Texas Mill and Elevator Co.	25 25
. 17	145	Printing	Advertising	Texas Christian Advocate	18 00
.. 17	146	Maintenance	Table linen	Sanger Bros	39 48
.. 17	147	Bookstore	Text books	D. L. Mussleman	16 60
.. 17	148	Bookstore	Text books	Timothy Moroney	27 33

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.		No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.						
Aug.	17	149	Printing	Blanks	Clarke & Courts	$22 00
..	17	150	Maintenance	Hardware	J. S. Brown Hardware Co	4 80
..	17	151	Gas	Gas pipe	Ripley & Bronson	89
..	17	152	Expense	Postage	W. C. Boyett	33 00
..	17	153	Cisterns	Sand	W. J. Moore	22 28
..	17	154	Maintenance	Groceries	J. W. English	33 19
..	17	155	Maintenance	Supplies	G. W. Norrell	1 50
..	17	156	Expense	Traveling expenses	L. L. McInnis	20 70
..	17	157	Expense	Exchange	First National Bank	7 34
..	17	158	Maintenance	Ice	Bryan Ice Co.	22 26
..	17	159	Agricultural Department	Supplies	Hanway & Son	1 25
..	17	160	Agricultural Department	Supplies	Wooten & Son	5 40
..	17	161	Agricultural Department	Supplies	G. W. Norrell	25
..	17	162	Maintenance	Supplies	Garth & Nash	65
..	17	163	Agricultural Department	Supplies	Cole Bros	7 00
..	17	164	Maintenance	Supplies	G. W. Norrell	1 88
..	17	165	Pfeuffer hall	Telegrams	Western Union Telegraph Co	80
..	17	166	Maintenance	Supplies	W. Koppe	2 00
..	17	167	Gas	Pipe	W. Koppe	4 48
..	17	168	Agricultural Department	Hardware	W. Koppe	3 50
..	17	169	Cisterns	Labor	Bartos Wanjop	13 00
..	19	170	Printing	Advertising	Express Publishing Company	15 00
..	19	171	Library	Books	W. D. McDonald & Co.	6 00
..	19	172	Cisterns	Brick	Charles Elliott	133 65
..	19	173	Smith shop	Brick	Charles Elliott	93 65
..	19	174	Salaries	Foreman shop	A. Harbers	44 00
..	19	175	Cisterns	Labor	Jim Chapman	10 00
..	19	176	Cisterns	Labor	Chas. Wheeler	70 00
..	19	177	Agricultural Department	Labor	Henry Bowser	4 12
..	24	178	Cisterns	Cement	Garth & Nash	82 50
..	24	179	Farm house	Contractor	Garth & Nash	41 25
..	24	180	Hospital	Contractor	Garth & Nash	53 03
..	24	181	Maintenance	Supplies	Garth & Nash	3 90
..	24	182	Maintenance	Crockery ware	Z. Emmich	59 30
..	24	183	Maintenance	Groceries	J. W. English	4 00
..	24	184	Expense	Blanks	M. Strickland & Co.	11 00
..	24	185	Maintenance	Supplies	Garth & Nash	1 63

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Aug. 24	186	Maintenance	Supplies	W. Koppe	$12 52
24	187	Library	Books	B. Westerman & Co.	4 54
24	188	Expense	Express	Pacific Express Company	30
24	189	Maintenance	Supplies	G. W. Norrell	85
25	190	Cisterns	Cement	Garth & Nash	89 00
25	191	Repairs	Ceiling mess hall	Garth & Nash	118 50
25	192	Library	Subscription	Texas Blade	1 50
26	193	Printing	Blanks	Texas Blade	2 00
26	194	Agricultural Department	Labor	J. Ellis & H. Bowser	5 25
27	195	Cisterns	Cement	Garth & Nash	19 00
27	196	Cisterns	Labor	C. Wheeler	10 00
27	197	Salaries	Member building committee	L. L. McInnis	150 00
27	198	Maintenance	Flour	Texas Mill and Elevator Co	100 00
27	199	Printing	Advertising	Denton Chronicle	2 50
27	200	Maintenance	Hardware	J. S. Brown Hardware Co.	37 17
27	201	Repairs	Painting	W. A. Dodson	37 50
27	202	Printing	Advertising	Holland & Knox	15 75
27	203	Printing	Advertising	Clarksville Standard	7 50
27	204	Maintenance	Groceries	Carson, Sewall & Co.	378 56
27	205	Horticultural Department	Supplies	J. W. English	40
29	206	Maintenance	Freight	Houston and Texas Central Ry.	2 95
29	207	Salaries	Foreman farm	J. H. Alsworth	66 66
29	208	Maintenance	Janitor	Otto Boehme	56 00
29	209	Salaries	Foreman shop	A. Harbers	60 00
29	210	Horticultural Department	Labor	Dominico	24 30
29	211	Maintenance	Labor	Valentine Howard	4 00
29	212	Maintenance	Labor	A. Zorazil	10 00
29	213	Maintenance	Labor	Jesse Parks	53 33
30	214	Maintenance	Stoves	Excelsior Manufacturing Co.	33 95
30	215	Cisterns	Labor	B. Sbisa	10 00
30	216	Gas	Labor	B. Sbisa	14 10
30	217	Pfeuffer hall	Labor	B. Sbisa	10 00
30	218	Maintenance	Lamp chimney	Ripley & Bronson	12 00
30	219	Agricultural Department	Supplies	Cole Bros	1 20
30	220	Repairs	Lumber	Garth & Nash	13 74
30	221	Maintenance	Hardware	W. Koppe	6 10
30	222	Horticultural Department	Postage	T. L. Bump	6 00

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Aug. 30	223	Cisterns	Labor	Jim Chapman	$20 75
.. 31	224	Agricultural Department	Student labor	H. Ness	20 00
.. 31	225	Agricultural Department	Farm pay roll	G. W. Curtis	41 50
.. 31	226	Printing	Blanks	Texas Blade	4 00
.. 31	227	Pfeuffer hall	Stoves	Excelsior Manufacturing Co	100 00
.. 31	228	Hospital	Stoves	Excelsior Manufacturing Co	30 00
.. 31	229	Section-room furniture	Stoves	Excelsior Manufacturing Co	30 00
.. 31	230	Students repairs	Stoves	Excelsior Manufacturing Co	27 98
.. 31	231	Section-room furniture	Desks	J. B. Merwin Supply Company	60 22
.. 31	232	Bookstore	Text books	D. Appleton & Co	24 85
.. 31	233	Maintenance	Furniture	Scarritt Furniture Company	79 70
.. 31	234	Maintenance	Mattresses	Houston Machine Mat. Co	248 35
.. 31	235	Maintenance	Groceries	Carson, Sewall & Co	29 06
31	236	Maintenance	Supplies	J. S. Brown Hardware Co	10 55
.. 31	237	Maintenance	Labor	Wm. Robinson	32 67
.. 31	238	Gas	Pipe	W. Koppe	2 50
.. 31	239	Maintenance	Supplies	W. Koppe	15 75
.. 31	240	Maintenance	Groceries	J. W. English	12 71
.. 31	241	Pfeuffer hall	Furniture	Fink & Braotz	114 00
.. 31	242	Maintenance	Furniture	Fink & Braotz	3 75
.. 31	243	Pfeuffer Hall	Hardware	J. S. Brown Hardware Co	3 27
.. 31	244	Maintenance	Beef	W. C. Boyett	58 60
.. 31	245	Expense	Postage	W. C. Boyett	9 10
.. 31	246	Maintenance	Supplies	B. Sbisa	110 88
.. 31	247	Maintenance	Steward	B. Sbisa	33 33
Sept. 5	248	Maintenance	Supplies	J. H. Coffman	4 00
8	249	Drawing Department	Material	E. & F. N. Span	4 22
.. 8	250	Bookstore	Text books	B. Westermann	279 18
.. 8	251	Maintenance	Supplies	W. Koppe	60
.. 8	252	Maintenance	Beef	Franklin & Foreman	4 00
.. 8	253	Maintenance	Supplies	Cole Bros	75
.. 8	254	Maintenance	Ice	Bryan Ice Company	22 17
.. 8	255	Agricultural Department	Supplies	W. Koppe	2 10
. 8	256	Agricultural Department	Supplies	Hanway & Son	1 50
8	257	Agricultural Department	Supplies	Wooten & Son	1 95
. 8	258	Mechanical Department	Supplies	G. W. Norrell	1 50
.. 8	259	Horticultural Department	Supplies	Hanway & Son	1 50

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Sept. 8	260	Mainntenance	Supplies	A. Stude.	$2 30
.. 8	261	Maintenance	Freight	Houston and Texas Central Ry.	1 32
.. 8	262	Bookstore.	Freight	Houston and Texas Central Ry.	5 55
.. 8	263	Maintenance	Furniture	Fink & Braotz	8 50
.. 8	264	Pfeuffer hall.	Traveling expenses	T. M. Scott	5 50
.. 10	265	Cisterns	Labor	J. Chapman	5 00
.. 10	266	Pfeuffer hall.	Contractors	Garth & Nash	1,500 00
.. 14	267	Maintenance	Wood	J. H. Suber	63 75
.. 14	268	Pfeuffer hall	Labor	Geo. Deaton	10 00
.. 14	269	Repairs	Labor	Geo. Deaton	2 50
.. 14	270	Cisterns	Labor	O. Laconture	4 80
.. 14	271	Repairs	Labor	O. Laconture	2 75
.. 14	272	Smith shop	Labor	Adam Haley	50
.. 15	273	Expense	Stationery	G. W. Norrell	7 10
.. 15	274	Horticultural Department	Seeds	East Texas Canning Co	5 51
.. 15	275	Maintenance	Groceries	J. W. English	16 55
.. 15	276	Mechanical Department	Lumber	Garth & Nash	10 40
.. 15	277	Mechanical Department	Lumber	Garth & Nash	12 96
.. 15	278	Horticultural Department	Supplies	Buford & Hall	65
.. 15	279	Agricultural Department	Supplies	Wooten & Son	75
.. 15	280	Bookstore	Text books	B. Westerman & Co	83 55
.. 15	281	Agricultural Department	Supplies	W. Koppe	2 60
.. 15	282	Maintenance	Supplies	W. Koppe	27 69
.. 17	283	Agricultural Department	Labor	J. H. Alsworth	24 37
.. 20	284	Agricultural Department	Express	Pacific Express Company	3 00
.. 20	285	Horticultural Department	Express	Wells Fargo Express Company.	85
.. 20	286	Maintenance	Wood	J. H. Suber, Jr	52 66
.. 20	287	Agricultural Department	Labor	H. Bowser	4 50
.. 20	288	Cisterns	Labor	J. Chapman	25 00
.. 29	289	Horticultural Department	Express	Pacific Expres Company	2 30
.. 29	290	Bookstore	Text books	B. Westerman & Co	163 18
.. 29	291	Pfeuffer hall	Hardware	J. S. Brown Hardware Co	2 72
.. 29	292	Expense	Stationery	G. W. Norrell	2 05
.. 29	293	Horticultural Department	Postage	T. L. Bump.	1 25
.. 29	294	Bookstore	Drawing materials	J. W. McQueen & Co	101 09
.. 29	295	Bookstore	Text Books	A. Lovell & Co	23 76
.. 29	296	Horticultural Department	Microscope	Bausch & Lamb	44 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887 Sept. 29	297	Bookstore	Express	Wells Fargo Express Company	$18 05
... 29	298	Mechanical Department	Hardware	W. Koppe	72 04
... 29	299	Horticultural Department	Supplies	J. W. English	3 25
... 29	300	Mechanical Department	Lumber	Garth & Nash	7 91
... 29	301	Agricultural Department	Tools	Rawson Manufacturing Co.	10 31
... 29	302	Cisterns	Cement	Garth & Nash	14 25
... 29	303	Maintenance	Groceries	J. W. English	49 57
... 29	304	Agricultural Department	Forage	L. A. Scott	318 50
... 29	305	Maintenance	Groceries	Carson, Sewall & Co.	459 31
... 29	306	Agricultural Department	Lumber	Garth & Nash	11 76
... 29	307	Maintenance	Supplies	W. Koppe	8 59
... 29	308	Bookstore	Text books	H. C. Baird & Co.	67 50
... 29	309	Maintenance	Mattresses	Houston Machine Mat. Co.	35 65
... 29	310	Horticultural Department	Repairs	Wooten & Son	50
... 29	311	Mechanical Department	Freight	Houston and Texas Central Ry.	1 17
... 29	312	Horticultural Department	Hardware	J. S. Brown Hardware Co.	24 70
... 29	313	Horticultural Department	Hardware	W. Koppe	2 70
... 29	314	Smith shop	Lumber	Garth & Nash	19 80
... 29	315	Creamery	Lumber	Garth & Nash	20 35
... 29	316	Pfeuffer hall	Contractor	Garth & Nash	2,500 00
... 29	317	Hospital	Contractor	Garth & Nash	400 00
... 29	318	Farm house	Contractor	Garth & Nash	300 00
... 29	319	Expense	Stationery	Wilkins & McGuire	6 00
... 30	320	Maintenance	Supplies	G. W. Norrell	1 65
... 30	321	Maintenance	Glassware	Missouri Glass Works	6 45
... 30	322	Smith shop	Hardware	W. Koppe	75
... 30	323	Mechanical Department	Hardware	W. Koppe	15 22
... 30	324	Mechanical Department	Supplies	Geo. Norrell	1 50
... 30	325	Maintenance	Supplies	W. Koppe	65
... 30	326	Maintenance	Labor	A. Zorozie	20 00
... 30	327	Maintenance	Labor	O. Boehme	22 50
... 30	328	Pfeuffer hall	Labor	J. Geromonski	5 00
... 30	329	Smith shop	Labor	J. Geromonski	10 00
... 30	330	Cisterns	Labor	J. Lepaso	15 00
... 30	331	Maintenance	Labor	Jesse Parks	20 00
... 30	332	Maintenance	Groceries	J. W. English	3 25
... 30	333	Expense	...	J. S. Brown Hardware Co.	2 63

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Oct. 1	334	Salaries	Foreman shop	A. Harbers	$60 00
... 1	335	Smith shop	Contractor	L. Weedon	70 00
... 1	336	Maintenance	Traveling expenses	T. M. Scott	5 60
... 3	337	Maintenance	Express	Wells Fargo Express Company	4 50
... 3	338	Expense	Express	Wells Fargo Express Company	60
... 3	339	Pfeuffer hall	Express	Wells Fargo Express Company	30
... 4	340	Horticultural Department	Labor	Dominico Bosinio	18 00
... 4	341	Expense	Labor	W. A. Dodson	11 85
... 4	342	Bookstore	Express	Pacific Express Company	1 40
... 4	343	Pfeuffer hall	Painting	W. A. Dodson	50 00
... 4	344	Hospital	Painting	W. A. Dodson	2 50
... 4	345	Farm house	Painting	W. A. Dodson	2 50
... 4	346	Salaries	Assistant professor chemistry and physics	D. Adriance	60 00
... 4	347	Salaries	Assistant professor in mechanics	F. E. Geisecke	60 00
... 4	348	Salaries	Foreman of farm	J. H. Alsworth	66 66
... 4	349	Salaries	Assistant professor mathematics	R. F. Smith	75 00
... 4	350	Salaries	Assistant professor English and history	W. B. Philpott	60 00
... 4	351	Salaries	Assistant professor agriculture	T. F. Duggan	20 00
... 4	352	Medical attendance	Surgeon	J. D. Read	100 00
... 4	353	Maintenance	Drummer	J. R. Fisk	20 00
... 4	354	Salaries	Gardener	G. E. Eberspocher	33 33
... 4	355	Maintenance	Beef	W. C. Boyett	257 65
... 4	356	Maintenance	Steward	B. Sbisa	166 66
... 8	357	Maintenance	Flour	Texas Mill and Elevator Co.	104 25
... 8	358	Agricultural Department	Pay roll	G. W. Curtis.	32 75
... 8	359	Agricultural Department	Student labor	H. Ness	16 60
... 11	360	Maintenance	Supplies	B. Sbisa	430 13
... 13	361	Smith shop	Sand	W. J. Moore	6 07
... 13	362	Farm house	Guttering	Cole Bros	18 95
... 13	363	Hospital	Guttering	Cole Bros	37 92
... 15	364	Agricultural Department	Implements	L. T. Fuller	7 50
.. 15	365	Horticultural Department	Implements	L. T. Fuller	7 50
... 15	366	Printing	Advertising	Texas Iron News	5 00
... 15	367	Maintenance	Groceries	Carson, Sewall & Co	103 65
... 15	368	Expense	Printing	J. J. Pastoriza	1 05
... 15	369	Maintenance	Gasoline	Waters Pierce Oil Co.	115 22
... 15	370	Bookstore	Express	Wells Fargo Express Company	3 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Oct. 15	371	Maintenance	Express	Wells Fargo Express Company	$28 26
.. 15	372	Bookstore	Text books	D. L. Mussleman	11 00
.. 15	373	Maintenance	Laundry	Houston Steam Laundry	173 10
.. 15	374	Horticultural Department	Supplies	Garth & Nash	6 07
.. 15	375	Repairs	Supplies	Garth & Nash	28 50
.. 15	376	Maintenance	Ice	Bryan Ice Co.	28 06
.. 15	377	Maintenance	Groceries	J. W. English	44 92
.. 15	378	Pfeuffer hall	Contractor	Garth & Nash	320 00
.. 15	379	Hospital	Contractor	Garth & Nash	100 00
.. 15	380	Mechanical Department	Hardware	W. Koppe	45
.. 15	381	Engineering Department	Hardware	W. Koppe	1 25
.. 15	382	Maintenance	Hardware	W. Koppe	50
.. 15	383	Agricultural Department	Repairs	A. Oswald	1 75
.. 15	384	Agricultural Department	Repairs	Wooten & Son	10 85
.. 15	385	Maintenance	Supplies	G. W. Norrell	2 30
.. 15	386	Mechanical Department	Supplies	G. W. Norrell	1 00
.. 15	387	Agricultural Department	Supplies	Hanway & Son	12 75
.. 15	388	Expense	Blanks	Texas Blade	3 00
.. 15	389	Section-room furniture	Chairs	Scarritt Furniture Company	112 55
.. 15	390	Bookstore	Text books	B. Westerman & Co.	97 53
.. 15	391	Smith shop	Contractor	L. Weedon	32 50
.. 15	392	Horticultural Department	Supplies	G. W. Norrell	80
.. 15	393	Maintenance	Oil	Waters Pierce Oil Company	10 07
.. 15	394	J. P. Aiken	Refunded	J. P. Aiken	23 00
.. 15	395	Maintenance	Groceries	J. W. English	7 20
.. 15	396	Mechanical Department	Lumber	Garth & Nash	9 26
.. 20	397	Agricultural Department	Lumber	Garth & Nash	46 57
.. 20	398	Agricultural Department	Supplies	Garth & Nash	75
.. 20	399	Mechanical Department	Supplies	Harrison Boiler Works	50
.. 20	400	Mechanical Department	Tools	F. Van Winkle	10 76
.. 20	401	Maintenance	Groceries	Carson, Sewall & Co.	1 00
.. 20	402	Maintenance	Groceries	L. A. Scott	13 00
.. 20	403	A. and M. conventions	Traveling expenses	G. W. Curtis	100 95
.. 20	404	Chemical Department	Minerals	C. H. Pennybacker	69 00
.. 20	405	Chemical Department	Apparatus	J. F. Dumble	18 30
.. 20	406	Horticultural Department	Supplies	Carson, Sewall & Co.	11 63
.. 20	407	Maintenance	Supplies	Carson, Sewall & Co.	15 26

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.		No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.						
Oct.	20	408	Horticultural Department	Tools	L. M. Rumsey Manufact'ng Co.	$24 52
..	25	409	Salaries	Agent board	T. M. Scott	187 50
..	31	410	Pfeuffer hall	Stove pipe	W. Koppe	38 00
..	31	411	Maintenance	Stove pipe	W. Koppe	16 40
..	31	412	Maintenance	Groceries	J. W. English	18 30
..	31	413	Military Department	Swords	J. H. McKinney & Co	87 50
..	31	414	Maintenance	Hardware	W. Koppe	5 60
..	31	415	Horticultural Department	Supplies	G. W. Norrell	25
..	31	416	Agricultural Department	Supplies	G. W. Norrell	20
..	31	417	Agricultural Department	Supplies	W. Koppe	20
..	31	418	Chemical Department	Supplies	R. F. Smith	1 00
Nov.	2	419	A. C. Martin	Refunded	A. C. Martin	15 00
.	2	420	Agricultural Department	Microscope	W. H. Wamsley & Co	34 20
..	7	421	Maintenance	Groceries	Carson, Sewall & Co	385 03
..	7	422	Maintenance	Oil	Waters Pierce Oil Co.	6 00
..	7	423	Agricultural Department	Forage	Texas Mill and Elevator Co	181 75
..	7	424	Maintenance	Flour	Texas Mill and Elevator Co.	97 05
..	7	425	Repairs	Supplies	Hanway & Son	80
.	7	426	Farm house	Contractor	Garth & Nash	87 00
..	7	427	Agricultural Department	Express	Pacific Express Company	1 55
	7	428	Maintenance	Ice	Bryan Ice Co.	6 15
..	7	429	Expense	Box rent	Bryan postoffice	1 00
..	7	430	Mechanical Department	Lumber	Garth & Nash	6 91
..	7	431	Salaries	Assistant mathematician	R. F Smith	75 00
..	7	432	Maintenance	Express	Wells Fargo Express Company	45 55
..	7	433	Medical attendance	Surgeon	J. D. Read	100 00
..	7	434	Salaries	Foreman farm	A. Harbers	60 00
.	7	435	Agricultural Department	Pay roll	J. H. Alsworth	50 65
..	7	436	Salaries	Assistant in English	W. B. Philpott	60 00
..	7	437	Maintenance	Drummer	J. R. Fisk	20 00
..	7	438	Maintenance	Beef	W. C. Boyett	258 31
..	7	439	Maintenance	Steward	B. Sbisa	166 66
..	7	440	Salaries	Assistant in chemistry	D. Adriance	60 00
..	7	441	Salaries	Assistant in agriculture	J. F. Duggan	60 00
..	10	442	Salaries	Assistant in mechanics	F. E. Geisecke	60 00
..	10	443	Salaries	Foreman farm	J. H. Alsworth	66 66
..	10	444	Salaries	Foreman Garden	G. E. Eberspocher	33 33

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Nov. 10	445	Smith shop	Contractor	H. P. Stacy	$226 00
.. 10	446	Maintenance	Janitor	Jesse Parks	20 00
.. 10	447	Maintenance	Supplies	B. Sbisa	484 12
.. 10	448	Maintenance	Janitor	A. Zorazil	20 00
.. 10	449	Hospital	Supplies	J. D. Read	1 50
.. 10	450	Horticultural Department	Labor	Dominico Bosinio	18 00
.. 10	451	Mechanical Department	Labor	J. Gerominski	13 50
.. 10	452	Expense	Stationery	G. W. Norrell	1 40
.. 14	453	Horticultural Department	Supplies	Wooten & Son	70
.. 14	454	Maintenance	Supplies	W. Koppe	1 20
.. 14	455	Horticultural Department	Supplies	W. Koppe	2 81
.. 14	456	Expense	Telegrams	Western Union Telegraph Co	1 85
.. 14	457	Pfeuffer hall	Hardware	W. Koppe	2 50
.. 14	458	Maintenance	Laundry	Houston Steam Laundry	221 90
.. 14	459	Educational exhibit at Dallas Fair	Expense	L. L. McInnis	9 75
.. 14	460	Mechanical Department	Labor	P. Winter	5 00
.. 14	461	Expense	Traveling expenses	L. L. McInnis	9 25
.. 14	462	Repairs	Labor	J. H. Alsworth	4 49
.. 14	463	Maintenance	Groceries	J. W. English	7 20
.. 14	464	Military Department	Supplies	Guy Carleton	1 00
.. 14	465	Horticultural Department	Labor	Dominico Bosinio	7 80
.. 15	466	Horticultural Department	Labor	J. Lepaso	20 50
.. 15	467	Horticultural Department	Express	Pacific Express Company	45
.. 15	468	Agricultural Department	Student labor	H. Ness	12 55
.. 15	469	E. B. Baker	Refunded	E. B. Baker	30 00
.. 15	470	Horticultural Department	Brick	Chas Elliott	91 57
.. 15	471	Smith shop	Brick	Chas. Elliott	57 75
.. 16	472	A. Wangemann	Refunded	A. Wangemann	30 00
.. 16	473	Expense	Exchange	First National Bank	12 56
.. 16	474	Expense	Exchange	First National Bank	25
.. 17	475	Maintenance	Express	W. C. Boyett	5 35
.. 17	476	Chemical Department	Freight	Houston and Texas Central Ry.	12 17
.. 17	477	Maintenance	Groceries	Carson, Sewall & Co	14 65
.. 18	478	Agricultural Department	Tools	C. W. Alsworth	7 12
.. 18	479	Maintenance	Laundry	Dallas Steam Laundry	140 85
.. 22	480	Repairs	Labor	Peter Winter	22 60
.. 22	481	Cisterns	Labor	Peter Winter	133 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887. Nov. 25	482	Maintenance	Janitor.	O. Boehme	$25 00
.. 26	483	Creamery	Labor	Bill Smith	2 00
.. 28	484	Maintenance	Wood	J. H. Suber.	113 15
.. 31	485	Pfeuffer hall	Sand.	L. F. Battle	50
.. 31	486	Agricultural Department	Freight	Pacific Express Company	35
Dec. 1	487	Salaries.	Foreman farm	J. H. Alsworth	66 66
.. 1	488	Expense	Labor	Jos. Geromonski	15 00
.. 1	489	Expense.	Hardware	W. Koppe	2 00
.. 1	490	Maintenance	Washing	Houston Steam Laundry	113 05
.. 1	491	Maintenance	Oil	Waters Pierce Oil Co.	6 00
.. 1	492	Maintenance	Flour	Texas Mill and Elevator Co.	97 27
.. 1	493	Maintenance	Supplies	J. W. English	11 95
.. 1	494	Maintenance	Groceries	Carson, Sewall & Co	235 75
.. 1	495	Agricultural Department	Supplies	J. W. English	2 55
.. 1	496	Horticultural Department	Supplies	J. W. English	1 00
.. 1	497	Repairs	Glass	Jas. Bute	18 35
.. 1	498	Mechanical Department	Hardware	W. Koppe	3 95
.. 2	499	Agricultural Department	Labor	B. Sbisa	30 00
.. 2	500	Salaries	Foreman shop	A. Harbers	60 00
.. 2	501	Salaries	Gardener	G. E. Eberspocher	33 33
.. 2	502	Salaries	Assistant mechanical engineer	F. E. Gieseche	60 00
.. 2	503	Salaries	Assistant in agriculture	J. F. Duggan	60 00
.. 2	504	Salaries	Assistant in chemistry	D. Adriance	60 00
.. 2	505	Maintenance	Drummer	J. R. Fisk	20 00
.. 2	506	Salaries	Assistant in English	W B. Philpott	60 00
.. 2	507	Medical attendance.	Surgeon	J. D. Read	100 00
.. 2	508	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 2	509	Maintenance	Janitor.	A. Zorazil	20 00
.. 2	510	Maintenance	Steward	B. Sbisá	145 24
.. 2	511	Educational exhibit	Dallas Fair	R. F. Smith and others	65 00
.. 2	512	Maintenance	Janitor	Otto Boehme	25 00
.. 3	513	J. N. Stowe	Refunded	J. N. Stowe	10 00
.. 3	514	Agricultural Department	Labor.	J. H. Alsworth	46 90
.. 5	515	Maintenance	Beef	W. C. Boyett.	232 80
.. 5	516	Maintenance	Freight	Wells, Fargo & Co	7 55
.. 5	517	Expense.	Freight	Wells, Fargo & Co	2 50
.. 5	518	Maintenance	Freight	Wells, Fargo & Co	52 56

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887, Dec. 5	519	Maintenance	Groceries and supplies	B. Sbisa	$565 40
.. 5	520	Maintenance	Groceries and supplies	J. W. English	1 60
.. 5	521	Maintenance	Freight	Pacific Express Company	35
.. 5	522	Maintenance	Groceries	Carson, Sewall & Co	82 95
.. 5	523	Chemical Department	Supplies	Eisner & Vincent	120 27
.. 5	524	Mechanical Department	Lumber	Garth & Nash	7 76
.. 5	525	Horticultural Department	Repairs	Wooten & Son	65
.. 5	526	Horticultural Department	Supplies	T. L. Brunk	1 25
.. 5	527	Military Department	Supplies	Hanway & Son	10 50
.. 5	528	Salaries	Agent board	T. M. Scott	62 50
.. 5	529	Expenses	Traveling for college	T. M. Scott	2 60
.. 9	530	Creamery	Labor	Bill Smith	18 00
.. 17	531	Agricultural Department	Labor	H. Ness	10 50
.. 17	532	Agricultural Department	Supplies	Garth & Nash	1 50
.. 17	533	Maintenance	Gasoline	Waters Pierce Oil Company	152 13
.. 17	534	Maintenance	Supplies	W. Koppe	75
.. 17	535	Bookstore	Books	F. A. Gulley	31 50
.. 17	536	Maintenance	Groceries	J. W. English	13 05
.. 17	537	Printing		Brazos Pilot	3 00
.. 17	538	Smith shop	Painting	W. A. Dodson	16 00
.. 17	539	Mechanical Department	Painting	W. A. Dodson	29 00
.. 17	540	Maintenance	Janitor	Jesse Parks	20 00
.. 19	541	Creamery	Labor	Jim Chapman	30 00
.. 19	542	Agricultural Department	Labor	J. R. Vennoy	7 25
.. 19	543	Maintenance	Labor	B. Wasujok	3 00
.. 20	544	Maintenance	Freight	Houston and Texas Central Ry.	147 71
.. 20	545	Bookstore	Freight	Houston and Texas Central Ry.	1 52
.. 20	546	Expense	Traveling expenses	C. C. Garrett	11 60
.. 21	547	Creamery	Brick	Chas. Elliott	165 00
.. 24	548	Bookstore	Books	D. Appleton & Co.	65 75
.. 24	549	Bookstore	Books	O. Judd & Co	4 78
.. 24	550	Bookstore	Books	A. Holt & Co	1 19
.. 24	551	Bookstore	Books	J. E. Bothen & Co	43 20
.. 24	552	Mechanical Department	Supplies	F. Van Winkle	6 08
.. 24	553	Horticultural Department	Seeds	Plant Seed Company	7 54
. 24	554	Agricultural Department	Labor	Jas. Hall	11 50
.. 24	555	Repairs	Supplies	G. W. Norrell	50

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1887.					
Dec. 24	556	Expense	Traveling expenses.	T. M. Scott.	$14 70
.. 24	557	Expense	Traveling expenses.	W. R. Cavitt	15 10
.. 24	558	Expense.	Carriage	Monroe Miller	8 00
.. 24	559	Maintenance	Drummer	J. R. Fisk	20 00
.. 24	560	Expense	Traveling expenses	W. L. Bringhurst	12 70
.. 24	561	Expense	Traveling expenses.	R. H. Whitlock	14 30
.. 24	562	Expense	Traveling expenses	L. L. McInnis	33 35
.. 29	563	Maintenance	Washing	Houston Steam Laundry	203 35
.. 29	564	Maintenance	Freight	Houston and Texas Central Ry.	28 18
.. 29	565	Horticultural Department	Freight	Houston and Texas Central Ry	12 80
1888.					
Jan. 3	566	Maintenance	Beef.	W. C. Boyett	241 86
.. 3	567	Salaries	Gardener	G. E. Eberspocher	33 33
.. 5	568	Bookstore	Books.	Robt. Clark & Co	11 53
.. 5	569	Bookstore	Books	B. Westerman & Co.	340 52
.. 5	570	Agricultural Department	Labor	J. H. Alsworth	30 60
.. 5	571	Agricultural Department	Labor	H. Ness	10 85
.. 5	572	Maintenance	Labor	J. Geromonski	8 00
.. 5	573	Salaries	Assistant mathematician	R. F. Smith	75 00
.. 5	574	Medical attendance	Surgeon	J. D. Read	100 00
.. 5	575	Salaries	Assistant in English	W. B. Philpott	60 00
.. 5	576	Salaries	Assistant chemist	D. Adriance	60 00
.. 5	577	Salaries	Assistant in agriculture	J. F. Duggan	60 00
.. 5	578	Salaries	Assistant in mechanical engineering	F. E. Geisecke	60 00
.. 5	579	Maintenance	Steward	B. Sbisa	145 24
.. 5	580	Maintenance	Janitor	Jesse Parks	20 00
.. 5	581	Maintenance	Janitor	O. Boehme	25 00
.. 5	582	Maintenance	Janitor	A. Zorazil	20 00
.. 6	583	Maintenance	Flour.	Texas Mill and Elevator Co.	98 11
.. 6	584	Maintenance	Groceries	Carson, Sewall & Co.	115 27
.. 6	585	Maintenance	Oil	Waters Pierce Oil Co.	9 00
.. 6	586	Expense		L. L. McInnis	4 85
.. 6	587	Maintenance		Garth & Nash	1 65
.. 6	588	Maintenance	Supplies.	J. W. English.	3 25
.. 6	589	Maintenance	Supplies.	Rubenstein	2 00
.. 6	590	Salaries.	Foreman farm	J. H. Alsworth.	66 66
.. 6	591	Repairs		W. Koppe	1 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount.
1888. Jan. 6	592	Chemical Department	Ore samples	C. H. Pennybacker	$25 00
.. 6	593	Maintenance	Groceries	Thurber, Whyland & Co.	1,437 67
.. 6	594	Agricultural Department	Supplies	W. Koppe.	15
.. 6	595	Mechanical Department	Supplies	W. Koppe	35
.. 6	596	Library	Books	W. D. McDonald & Co.	6 00
.. 6	597	Expense	Postoffice box rent	J. Q. Tober	1 00
.. 6	598	Bookstore	Supplies	Bausch & Lamb	25 00
.. 6	599	Mechanical Department	Wood for furnace	J. H. Suber	56 58
.. 6	600	Library	Books	B. Westermann & Co.	4 50
.. 7	601	Agricultural Department		Jno. Christie	50 55
.. 7	602	Creamery	Labor	Jim Chapman	20 00
.. 7	603	Salaries	Foreman shop	A. Harbers	75 00
.. 7	604	Maintenance	Groceries and supplies	B. Sbisa	475 15
7	605	Library	Periodicals	Journal of Commerce	1 50
.. 7	606	Horticultural Department	Supplies	W. Koppe	1 00
.. 7	607	Agricultural Department	Hardware	J. S. Brown & Co	6 30
10	608	Horticultural Department	Supplies	Sipples, Perkins & Co	13 12
.. 10	609	Horticultural Department	Hardware	W. Koppe.	79
.. 10	610	Agricultural Department	Hardware	W. Koppe.	1 70
.. 10	611	Agricultural Department	Supplies	G. W. Norrell	75
.. 10	612	Expense	Telegrams	Western Union Telegraph Co.	1 20
.. 10	613	Maintenance	Supplies	J. W. English	2 70
.. 10	614	Maintenance	Supplies	W. Koppe	2 10
.. 10	615	Mechanical Department	Supplies	W. Koppe	50
.. 10	616	Mechanical Department	Supplies	Garth & Nash.	5 84
.. 10	617	Agricultural Department	Supplies	W. C. Boyett	39 60
12	618	Maintenance	Freight	Wells-Fargo Express Company.	44 90
.. 12	619	Bookstore	Freight	Wells-Fargo Express Company.	2 50
.. 14	620	Agricultural Department	Oats	L. A. Scott	246 00
.. 30	621	F. G. Sanderson	Refunded	F. G. Sanderson	15 00
.. 31	622	Maintenance	Groceries	J. W. English.	19 93
.. 31	623	Maintenance	Washing	Houston Steam Laundry	202 30
.. 31	624	Maintenance	Hardware	W. Koppe	12 30
.. 31	625	Expense	Hardware	W. Koppe	1 90
.. 31	626	Expense	Stationery	Geo. W. Norrell.	3 10
.. 31	627	Maintenance	Supplies	Cole Bros	4 05
.. 31	628	Maintenance	Groceries	Carson, Sewall & Co	14 85

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. Jan. 31	629	Maintenance	Gasoline	Waters Pierce Oil Co.	$136 86
.. 31	630	Bookstore	Books	F. A. Gulley.	6 84
.. 31	631	Bookstore	Books	Clark & Maynard	15 86
.. 31	632	Expense	Furniture, office	J. B. Merrim Supply Company	10 70
.. 31	633	Mechanical Department	Supplies.	J. R. Morris & Son	6 75
.. 31	634	Chemical Department	Supplies	W. Koppe	3 50
.. 31	635	Mechanical Department	Supplies	Garth & Nash.	2 06
.. 31	636	Chemical Department	Supplies	W. Koppe	4 05
.. 31	637	Creamery	Contractors	Garth & Nash.	14 20
.. 31	638	Library	Book	J. H. Brown.	3 00
.. 31	639	Propagating house	Supplies	A. McGowan	16 75
.. 31	640	Agricultural Department	Hardware	W. Koppe.	1 00
.. 31	641	Creamery	Contractor	Garth & Nash	9 50
31	642	Agricultural Department	Printing.	J. J. Pastoriza	66 35
.. 31	643	Salaries	Agent board	T. M. Scott	125 00
.. 31	644	Maintenance	Supplies	W. Koppe	10 05
.. 31	645	G. Y. Bird	Refunded	G. Y. Bird	12 00
.. 31	646	A. Holmes.	Refunded	A. Holmes	30 00
.. 31	647	J. H. Noble	Refunded	J. H. Noble	20 00
.. 31	648	Maintenance	Groceries	J. W. English	8 83
.. 31	649	Agricultural Department	Supplies	W. Koppe.	8 65
. 31	650	Mechanical Department	Supplies	W. Koppe	30
.. 31	651	Agricultural Department	Supplies	Hanway & Son	6 10
.. 31	652	W. C. Connor	Refunded	W. C. Connor	13 50
.. 31	653	Chemical Department	Supplies	Eisner & Vincent	8 00
.. 31	654	Agricultural Department	Labor.	J. H. Alsworth	37 50
.. 31	655	Horticultural Department.	Seed	Plant Seed Company.	29 02
.. 31	656	O. Gross	Refunded	O. Gross	17 00
.. 21	657	B. R. Plumley.	Refunded	B. R. Plumley	18 50
.. 31	658	J. M. McNeill	Refunded	J. M. McNeill.	17 40
.. 31	659	F. F. Simms	Refunded	F. F. Sims	17 85
. 31	660	L. Henderson	Refunded	L. Henderson	20 00
. 31	661	R. M. Connor	Refunded	R. M. Cannor.	30 00
.. 31	662	R. L. Baker	Refunded	R. L. Baker	20 00
.. 31	663	W. S. Rudasill	Refunded	W. S. Rudasill	20 00
.. 31	664	Medical attendance	Surgeon	J. D. Read.	100 00
.. 31	665	Salaries	Assistant in English	W. B. Philpott	60 00

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.					
Jan. 31	666	Salaries	Assistant chemist	D. Adriance	$60 00
.. 31	667	Salaries	Assistant mechanical engineer	F. E. Geisecke	60 00
.. 31	668	Salaries	Assistant in agriculture	J. F. Duggan	60 00
.. 31	669	Salaries	Assistant mathematician	R. F. Smith	90 00
.. 31	670	Salaries	Foreman shop	A. Harbers	75 00
.. 31	671	Salaries	Foreman farm	J. H. Alsworth	66 66
.. 31	672	Maintenance	Drummer	J. R. Fisk	20 00
.. 31	673	Salaries	Gardener	G. E. Eberspocher	33 33
.. 31	674	Maintenance	Janitor	A. Zorazil	20 00
Feb. 2	675	Maintenance	Janitor	O. Boehme	25 00
.. 2	676	Maintenance	Janitor	Jesse Parks	20 00
.. 2	677	Maintenance	Steward	B. Sbisa	145 24
.. 2	678	Chemical Department	Books	Mrs. T. E. Dinwiddie	1 75
.. 2	679	Maintenance	Wood	Mrs. T. E. Dinwiddie	6 00
.. 2	680	Repairs	At residence	Mrs. T. E. Dinwiddie	80 00
.. 2	681	Expense	Typewriter	Mrs. T. E. Dinwiddie	85 00
.. 2	682	Library	Books	Mrs. T. E. Dinwiddie	100 00
.. 3	683	Expense		G. W. Curtis	30 00
.. 4	684	Maintenance	Labor	Jos. Geromonski	8 50
.. 6	685	Expense	Traveling for college	C. C. Garrett	14 10
.. 6	686	G. R. Cottingham	Refunded	G. R. Cottingham	15 00
.. 6	687	Maintenance	Beef	W. C. Boyett	247 40
.. 6	688	Expense	Postage	W. C. Boyett	41 30
.. 6	689	Agricultural Department	Freight	W. C. Boyett	7 00
.. 9	690	Maintenance	Groceries and supplies	B. Sbisa	433 69
.. 9	691	Maintenance	Freight	Wells-Fargo Express Company	50 15
.. 9	692	Horticultural Department	Freight	Wells-Fargo Express Company	1 55
.. 9	693	Agricultural Department	Freight	Wells-Fargo Express Company	75
.. 16	695	Museum	Furniture	Scarritt Furniture Company	31 51
.. 16	697	Expense	Printing	Farm and Ranch	3 00
.. 16	698	Maintenance	Gasoline	Waters Pierce Oil Co.	127 26
.. 16	699	Maintenance	Flour	Texas Mill and Elevator Co	63 25
.. 16	700	Maintenance	Meal	L. A. Scott	16 50
.. 16	701	Maintenance	Groceries	Carson, Sewall & Co	76 94
.. 16	702	Maintenance	Washing	Houston Steam Laundry	131 60
.. 16	703	Agricultural Department	Hardware	W. Koppe	40
.. 16	704	Expense	Printing	Brazos Pilot	9 00

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. Feb. 16	705	Repairs	Hardware	W. Koppe	$2 35
.. 16	706	Creamery	Contractor	Garth & Nash	21 65
.. 16	707	Agricultural Department	Lumber	Garth & Nash	7 20
.. 16	708	Propagating house	Contractors	Garth & Nash	12 95
.. 16	709	Agricultural Department	Supplies	J. W. English	1 35
.. 16	710	Agricultural Department	Repairs to implements	A. Oswald	2 55
.. 16	711	Horticultural Department	Repairs to implements	Willie Wooten	2 50
.. 16	712	Expense	Secretary Board	L. L. McInnis	25 00
.. 16	713	Expense	Supplies	Cole Bros	15 13
.. 16	714	Repairs	Supplies	Cole Bros	2 80
.. 16	715	Expense	Dry goods	Webb Bros	9 78
.. 16	716	Maintenance	Groceries	J. W. English	13 39
.. 16	717	Mechanical Department	Supplies	G. W. Norrell	1 50
.. 16	718	Mechanical Department	Supplies	Garth & Nash	1 68
.. 16	719	Mechanical Department	Hardware	W. Koppe	90
.. 16	720	Chemical Department	Supplies	G. W. Norrell	6 65
.. 17	722	Propagating house	Labor	L. E. Weeden	7 50
.. 17	723	Repairs	Labor	L. E. Weeden	20 00
.. 20	724	Expense		L. White	1 70
.. 20	725	Maintenance		L. White	11 00
.. 20	726	Printing	Advertising	Semi-Weekly Texan	3 00
.. 20	727	Library	Files	Globe Co	19 90
.. 20	729	Expense	File boxes	Globe Co	40 94
.. 20	730	Agricultural Department	File boxes	Globe Co	7 50
.. 20	731	Horticultural Department	Supplies	Carson, Sewall & Co	23 42
.. 20	732	Maintenance	Groceries	Carson, Sewall & Co	17 33
.. 20	733	Library	Books	B. Westermann & Co	4 50
.. 20	734	Bookstore	Books	B. Westermann & Co	207 83
.. 20	735	Agricultural Department	Labor	A. Jostram	10 15
.. 20	736	Maintenance	Oil	Waters Pierce Oil Company	6 00
.. 20	737	Library	Books	B. Westermann & Co	38 32
.. 20	738	Horticultural Department	Trees	Wm. Radam	10 30
.. 20	739	E. M. Campbell	Refunded	C. M. Campbell	70 00
.. 20	740	Bookstore	Books	Clark & Maynard	1 98
.. 20	741	Mechanical Department	Lumber	Garth & Nash	2 56
.. 20	742	Propagating house	Supplies	W. Koppe	16 55
.. 20	743	Propagating house	Contractor	Garth & Nash	24 98

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.		No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.						
Feb.	20	744	Hennery	Lumber	Garth & Nash	$4 62
..	20	745	Maintenance	Groceries	J. W. English	3 95
..	20	746	W. J. Keppler	Refunded	W. J. Keppler	5 00
..	20	747	Maintenance	Flour	Texas Mill and Elevator Co	35 46
..	20	748	Museum	Furniture	Eisnen & Amend	68 39
..	20	750	Chemical Department	Supplies	Eisnen & Amend	163 43
..	20	753	Salaries	Assistant mathematician	R. F. Smith	90 00
..	20	754	Maintenance	Washing	Houston Steam Laundry	123 55
Mar.	5	755	Expense	Stationery	I. J. Babbett	3 66
..	5	756	Salaries	Gardener	G. E. Eberspocher	33 33
..	5	757	Horticultural Department	Labor	Geo. Stilz	9 00
..	5	758	Agricultural Department	Labor	J. H. Alsworth	60 00
..	5	759	Agricultural Department	Labor	H. Ness	25 80
..	5	760	Maintenance	Labor	J. Geromonski	14 00
..	5	761	Salaries	Foreman shop	A. Harbers	75 00
..	5	762	Maintenance	Servant at hospital	L. Parks	6 00
..	5	764	Propagating house	Labor	L. E. Weeden	20 00
..	5	765	Agricultural Department	Labor	J. W. Birdwell	2 25
..	5	766	Salaries	Assistant Prof. of chemistry	D. Adriance	60 00
..	5	767	Maintenance	Janitor	O. Boehme	25 00
..	5	768	Maintenance	Drummer	J. R. Fisk	20 00
..	5	769	Salaries	Foreman farm	J. H. Alsworth	66 66
..	5	770	Salaries	Assistant Prof. of mechanics	F. E. Geisecke	60 00
..	5	771	Salaries	Assistant Prof. of English	W. B. Philpott	60 00
..	5	772	Salaries	Assistant Prof. of agriculture	J. F. Duggan	60 00
..	5	773	Medical attendance	Surgeon's salary	J. D. Read	100 00
..	5	774	Maintenance	Stewart's salary	B. Sbisa	145 24
..	5	775	Maintenance	Janitor	Jesse Parks	20 00
..	5	776	Maintenance	Janitor	Anton Zorazil	20 00
..	5	778	Maintenance	Freight	Wells Fargo Express Company	50 85
..	5	779	Maintenance	Freight	Houston and Texas Central Ry	13 20
..	5	780	Chemical department	Freight	Houston and Texas Central Ry	1 92
..	5	781	Bookstore	Express charges on books	Wells Fargo Express Company	3 00
..	5	782	Agricultural Department	Freight	Wells Fargo Express Company	30
..	5	784	Repairs	Lumber	Garth & Nash	9 28
..	5	785	Farm house	Lumber	Garth & Nash	8 77
..	5	786	Creamery	Labor	Bartos Wasujok	17 60

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. Mar. 5	787	Maintenance	Groceries and servants	B. Sbisa	$238 01
.. 5	788	Maintenance	Beef	W. C. Boyett	248 45
.. 5	789	Expense	Traveling expenses	C. C. Garrett	13 50
.. 5	790	Maintenance	Groceries	Carson, Sewall & Co	44 16
.. 5	791	Maintenance	Oil	Waters Pierce Oil Company	25 35
.. 5	792	Expense	Stationery	G. W. Norrell	50
.. 5	793	Maintenance	Meal	L. A. Scott	17 25
.. 5	794	Maintenance	Flour	Texas Mill and Elevator Co	94 56
.. 5	795	Maintenance	Groceries	J. W. English	14 20
.. 5	796	Expense	Supplies	J. H. McKenney & Co	3 55
.. 5	797	Mechanical Department	Supplies	G. W. Norrell	3 20
. 5	798	Mechanical Department	Lumber	Garth & Nash	4 69
.. 5	799	Horticultural Department	Seeds	Plant Seed Company	22 45
.. 5	800	Agricultural Department	Hardware	W. Koppe	3 50
.. 5	801	Library	Periodicals for library	K. subscribtion agency	92 65
.. 5	802	Bookstore	Supplies	J. W. Queen & Co	10 35
.. 5	803	Bookstore	Books	H. B. Mayo	7 50
.. 5	804	Bookstore	Books	Van Antwerp, Bragg & Co	32 40
.. 5	805	Expense	Salary of clerk	G. A. Rogers	16 67
.. 5	806	Maintenance	Groceries and supplies	B. Sbisa	208 84
.. 5	807	Expense	Traveling for college	T. M. Scott	6 00
.. 5	809	Expense	Traveling for college	L. L. McInnis	6 00
.. 5	810	Agricultural Department	Labor	H. Bowser	7 50
.. 5	811	Library	Books	A. C. McCleary & Co	43 21
.. 5	812	Museum	Furniture	Scarritt Furniture Company	55 00
.. 5	813	Horticultural Department	Hardware	J. S. Brown Hardware Company	27 71
.. 5	814	Expense	Exchange	First National Bank	7 35
.. 28	816	Mathematical Department	Instrument	T. F. Randolph	32 75
.. 28	817	Horticultural Department	Seed	Peter Henderson & Co	3 87
.. 28	818	Horticultural Department	Seed	Hill, Settle & Co	6 35
.. 28	819	Expenses	Writing papers	Reynolds & Reynolds	17 05
.. 28	820	Maintenance	Groceries	Carson, Sewall & Co	14 57
.. 28	821	Maintenance	Washing	Houston Steam Laundry	121 45
.. 28	822	Maintenance	Meal	L. A. Scott	16 00
.. 28	823	Maintenance	Flour	Texas Mill and Elevator Co	23 15
.. 28	824	Bookstore	Books	D. Van Nostrand	26 00
.. 28	825	Agricultural Department	Hardware	Henderson Manufacturing Co	6 50

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. Mar. 28	826	Horticultural Department	Seed	Darwin & Baker Bros.	$4 25
28	827	F. Guenther	Refunded	F. Guenther	35 00
28	828	Horticultural Department	Seed	Yoakum Seed Company	1 29
28	829	Hospital	Repairs	Garth & Nash	8 00
28	830	Museum	Supplies	W. Koppe	75
28	831	Museum	Supplies	G. W. Norrell	75
28	833	Expense	Lumber	Garth & Nash	1 44
28	832	Expense	Telegrams	Western Union Telegraph Co.	1 20
28	834	Maintenance	Groceries	J. W. English	24 95
28	835	Mechanical Department	Hardware	W. Koppe	1 55
28	836	Mechanical Department	Lumber	Garth & Nash	2 23
28	837	Creamery	Labor	J. Geromonski	4 50
28	838	Agricultural Department	Supplies	Hanway & Son	3 50
28	839	Agricultural Department	Lumber	Garth & Nash	15 45
28	840	Horticultural Department	Hardware	W. Koppe	6 65
28	841	Agricultural Department	Hardware	W. Koppe	1 65
28	842	J. & J. R. Nichols	Refunded	J. & J. R. Nichols	24 00
28	843	Agricultural Department	Repairs to implements	A. Oswald	2 95
28	844	Repairs	Lumber	Garth & Nash	4 38
28	845	Salaries	Agent board	T. M. Scott	125 00
30	846	Salaries	Gardener	G. E. Eberspocher	33 33
30	847	Horticultural Department	Labor	Geo. Stilz	18 00
30	848	Expense	Bookkeeper	G. A. Rogers	16 67
30	849	Maintenance	Janitor	Jesse Parks	20 00
30	850	Maintenance	Janitor	Otto Boehme	25 00
30	851	Maintenance	Janitor	A. Zorazil	20 00
30	852	Maintenance	Drummer	J. R. Fisk	20 00
30	853	Salaries	Foreman farm	J. H. Alsworth	66 66
30	854	Medical attendance	Surgeons Salary	J. D. Read	100 00
30	855	Salaries	Assistant professor of agriculture	J. F Duggan	60 00
30	856	Salaries	Assistant professor of mechanics	F. E. Giesecke	60 00
30	857	Salaries	Foreman of shops	A. Harbers	75 00
30	858	Maintenance	Stewards salary	B. Sbisa	145 24
30	859	Salaries	Assistant professor in English	W. B. Philpott	60 00
30	860	Salaries	Assistant professor in chemistry and physics	D. Adriance	60 00
30	861	Salaries	Assistant professor in mathematics	R. F Smith	90 00
30	862	Agricultural Department	Labor	J. H. Alsworth	15 95

Exhibit B—continued

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. April 2	863	Expense	Postage stamps	J. F. Stokeley	$25 63
2	864	Expense	Stationery	Clark & Courts	44 35
2	865	Creamery	Hardware	W. Koppe	1 25
2	866	Expense	Stationery	W. H. Webb	40
2	867	Maintenance	Gasoline	Waters Pierce Oil Co.	169 68
2	868	Maintenance	Groceries	Carson, Sewall & Co.	189 16
2	869	Agricultural Department	Lumber	Garth & Nash	12 97
2	870	Chemical Department	Supplies	G. W. Norrell	60
2	871	Mechanical Department	Lumber	Garth & Nash	1 44
2	872	Maintenance	Groceries	J. W. English	6 48
3	873	Creamery	Labor	Peter Winter	43 25
4	874	Expense	Hardware	W. Koppe	2 15
4	875	Maintenance	Beef	W. C. Boyett	290 65
9	876	Agricultural Department	Labor	J. H. Alsworth	41 80
9	877	Agricultural Department	Labor	H. Ness	13 65
9	878	Bookstore	Express on books	Wells, Fargo & Co	3 00
9	879	Mathematical Department	Freight	Wells, Fargo & Co	3 00
10	880	Maintenance	Groceries and servants	B. Sbisa	469 12
10	881	Maintenance	Freight	Wells, Fargo & Co	43 00
12	882	Maintenance	Washing	Houston Steam Laundry	124 60
11	883	Expense	Traveling expenses	L. L. Foster	9 70
13	884	Hospital	Repairs	Garth & Nash	54 00
13	885	Farm house	Repairs	Garth & Nash	39 00
14	886	Creamery	Contractor	Garth & Nash	80 00
14	887	Propagating house	Contractor	Garth & Nash	423 60
14	888	Repairs	Servants house	Garth & Nash	232 00
14	889	Farm house	Servants house	Garth & Nash	165 00
14	890	Agricultural Department	Bran	Texas Mill and Elevator Co.	169 05
14	891	Agricultural Department	Labor	J. H. Alsworth	13 49
16	892	Bookstore	Books	B. Westerman & Co.	81 92
16	893	Library	Books	B. Westerman & Co.	42 63
16	894	Maintenance	Flour	Texas Mill and Elevator Co.	105 08
16	895	Bookstore	Books	F. A. Tulley	6 30
20	896	Chemical Department	Hardware	J. S. Brown Hardware Co.	12 83
20	897	Mechanical Department	Hardware	J. S. Brown Hardware Co.	4 13
21	898	Repairs	Hardware	J. S. Brown Hardware Co.	19 17
21	899	Agricultural Department	Labor	J. H. Alsworth	14 61

Exhibit B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888.					
April 21	900	Horticultural Department	Labor	Jno. P. Hafte	$2 25
... 23	901	Agricultural Department	Labor	J. H. Alsworth	11 25
... 23	902	Printing	Printing reports	Hutchings Printing Co.	13 00
... 23	903	Repairs	Repairs to furniture	Smith Davis Manufacturing Co	46 52
... 23	904	Maintenance	Groceries	J. W. English	13 66
... 23	905	Maintenance	Supplies	J. S. Wyse	1 65
... 23	906	Medical attendance	Hospital steward	J. H Suber	30 00
... 23	907	Maintenance	Oil	Waters Pierce Oil. Co.	18 00
... 23	908	Maintenance	Groceries	Carson, Sewall & Co	44 69
... 23	909	Agricultural Department	Labor	Jos. Gerominski	2 75
... 23	910	Horticultural Department	Labor	Jos. Gerominski	2 25
... 30	911	Calvin E. Martin	Refunded	Calvin E. Martin	15 00
... 30	912	Chas. E. Martin	Refunded	Chas. E. Martin	15 00
... 30	913	J. P. DeBat	Refunded	J. P. DeBat	15 00
... 30	914	J. Q. Allen	Refunded	J. Q. Allen	15 00
... 30	915	Cancelled			
... 30	916	Maintenance	Janitor	Otto Boehm	25 00
... 30	917	Maintenance	Janitor	Anton Zorazil	20 00
... 30	918	Maintenance	Janitor	Jesse Parks	20 00
... 30	919	Maintenance	Salary of steward	B. Sbisa	145 24
... 30	920	Maintenance	Salary of musician	J. R. Fisk	20 00
... 30	921	Horticultural Department	Labor	Geo. Stilz	18 00
... 30	922	Medical attendance	Surgeon's salary	J. D. Read	100 00
... 30	923	Salaries	Assistant professor chemistry and physics	D. Adriance	60 00
... 30	924	Salaries.	Foreman of farm	J. H. Alsworth	66 66
... 30	925	Salaries	Assistant professor in mechanics	F. E. Geisecke	60 00
... 30	926	Salaries	Assistant professor English and history	W. B. Philpott	60 00
... 30	927	Salaries	Assistant professor agriculture	T. F. Duggan	60 00
... 30	928	Salaries	Foreman shop	A. Harbers	75 00
... 30	929	Salaries	Gardener	G. E. Eberspocher	33 33
... 30	930	Salaries	Assistant professor mathematics	R. F. Smith	90 00
... 30	931	Expense	Bookkeeper	G. A. Rogers	16 67
... 30	932	Maintenance	Freight	Houston and Texas Central Ry.	1 29
... 30	933	Engineering Department	Apparatus	Jas. W. Queen & Co	85 48
... 30	934	Cisterns	Pump	J. I. Brown Hardware Co	12 31
... 30	935	Bookstore	Books	D. Van Nostrand	33 60
... 30	936	Mechanical Department	Machinery	The Gardner Gov. Co	15 29

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. April 30	937	Maintenance	Flour	Texas Mill and Elevator Co.	$70 03
... 30	938	Expense	Postoffice box rent	J. Q. Tabor	1 00
... 30	939	Repairs		Jas. Bute	7 45
... 30	940	Maintenance	Groceries	Carson, Sewall & Co.	241 54
... 30	941	Horticultural Department	Plants	Chas. Elsey	2 00
... 30	942	Agricultural Department	Repairs to implements	A. Oswald	2 95
... 30	943	Agricultural Department	Repairs to implements	Willie Wooten	4 75
... 30	944	Agricultural Department	Supplies	Garth's new gin and mill	10 15
... 30	945	Military Department	Supplies	Garth & Nash	1 05
... 30	946	Mechanical Department	Lumber	Garth & Nash	2 23
... 30	947	Engineering and drawing department	Supplies	G. W. Norrell	35
... 30	948	Repairs	Supplies	G. W. Norrell	60
... 30	949	Chemical Department	Supplies	G. W. Norrell	50
... 30	950	Horticultural Department	Hardware	W. Koppe	3 40
... 30	951	Agricultural Department	Hardware	W. Koppe	40 45
May 2	952	Agricultural Department	Labor	Mat Williams	3 00
... 2	953	Expense	Stationery	L. L. McInnis	38 00
... 3	954	Profft and Loss		L. L. McInnis, secretary	88 00
... 3	955	Agricultural Department	Labor	H. Ness	12 50
... 3	956	Maintenance	Supplies	J. S. Wyse	11 37
... 3	957	Agricultural Department	Labor	J. H. Alsworth	53 00
... 4	958	Agricultural Department	Labor	J. H. Alsworth	15 10
... 4	959	Maintenance	Beef	W. C. Boyett	213 20
... 4	960	Expense	Postage	W. C. Boyett	17 00
... 4	961	Maintenance	Beef	W. C. Boyett	152 91
... 4	962	Maintenance	Washing	Houston Steam laundry	123 90
... 4	963	Horticultural Department	Labor	Jim Jefferson	2 60
... 5	964	Agricultural Department	Labor	J. H. Alsworth	14 50
... 5	965	Medical attendance	Hospital janitor	Louis Parks	12 00
... 7	966	Horticultural department	Labor	Willis Nichols	3 75
... 7	967	Military Department	Freight	Houston and Texas Central Ry.	86
... 7	968	Maintenance	Freight	Wells Fargo Express Company	38 40
... 7	969	Bookstore	Freight	Wells Fargo Express Company	2 00
... 7	970	Expense	Freight	Wells Fargo Express Company	80
... 7	971	Mechanical Department	Freight	Wells Fargo Express Company	35
... 7	972	J. T. Blessing	Refunded	J. T. Blessing	15 00
... 7	973	Dan Cushing	Refunded	Dan Cushing	15 00

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. May 7	974	Maintenance	Groceries	B. Sbisa	$518 32
.. 8	975	Expense	Exchange	First National Bank	52
.. 8	976	Expense	Stationery	G. W. Norrell	4 85
.. 8	977	Maintenance	Ice	A. B. ice depot	18 29
.. 8	978	W. W. Duncan	Refunded	W. W. Duncan	15 00
.. 8	979	Expense	Lock	Miller Lock Co.	5 00
.. 8	980	Expense	Two instruments one year	Erie Telephone & Telegraph Co.	60 00
.. 8	981	Horticultural Department	Labor	L. Erwin	3 00
.. 8	982	Agricultural Department	Labor	Andrew Dickson	6 70
.. 8	983	Agricultural Department	Labor	Geo. Deaton	5 00
.. 8	984	Propagating house	Labor	Geo. Deaton	6 25
.. 8	985	Printing		Central Texas Publishing Co.	3 00
.. 8	986	Bookstore	Supplies	Central Texas Publishing Co.	4 00
.. 8	987	Agricultural Department	Agricultural implements	Calvin W. Alsworth	4 40
.. 8	988	Propagating house	Lumber	Garth & Nash	3 42
.. 8	989	Agricultural Department	Lumber	Garth & Nash	7 50
.. 8	990	Maintenance	Supplies	Webb Bros	2 05
.. 8	991	Maintenance	Supplies	J. W. English	3 20
.. 8	992	Maintenance	Groceries	Carson, Sewall & Co.	65 10
.. 8	993	Military Department	Leather	Hanway & Son	1 50
.. 8	994	Agricultural Department	Hardware	W. Koppe	1 85
.. 8	995	Horticultural Department	Implements	L. T. Fuller	9 50
.. 8	996	Horticultural Department	Repairs to implements	A. Oswald	1 25
.. 8	997	Horticultural Department	Students' labor	G. A. Rogers	4 00
.. 8	998	Mechanical Department	Hardware	W. Koppe	1 86
.. 8	999	Mechanical Department	Lumber	Garth & Nash	2 50
.. 8	1000	Repairs	Lumber	Garth & Nash	1 31
.. 8	1001	Smith shop	Forges	B. F. Sturtevant	190 21
.. 8	1002	Mechanical Department	Hardware	L. M. Rumsey Manufactur'g Co.	4 65
.. 8	1003	Mechanical Department	Hardware	Geo. M. Dilley & Son	1 75
.. 8	1004	Maintenance	Supplies	W. Koppe	90
.. 8	1005	Repairs	Lumber	Garth, Nash & Robinson	11 25
.. 8	1006	Horticultural Department	Hardware	J. S. Brown Hardware Co.	11 83
.. 8	1007	Maintenance	Hardware	J. S. Brown Hardware Co.	9 72
.. 8	1008	Medical attendance	Hospital stewart	J. H. Suber	30 00
.. 8	1009	Creamery	Freight	Houston and Texas Central Ry	16 38
.. 8	1010	Expense	Freight on safe	Houston and Texas Central Ry.	49 76

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. May 8	1011	Expense	Freight	Houston and Texas Central Ry.	$1 30
8	1012	Expense	Freight	Houston and Texas Central Ry.	25 00
8	1013	Creamery	Machinery for creamery	Cornish, Curtis & Co.	114 43
8	1014	Agricultural Department	Labor	J. H. Alsworth	23 82
8	1015	Expense	Labor	W. Williams	22 39
8	1016	Agricultural Department	Labor	J. H. Alsworth	32 60
8	1017	Horticultural Department	Labor	W. Nichols	6 75
8	1018	Maintenance	Janitor	Otto Boehme	25 00
21	1019	Maintenance	Janitor	A. Zorazil	20 00
21	1020	Maintenance	Janitor	Jesse Parks	20 00
21	1021	Maintenance	Stewart's salary	B. Sbisa	145 24
21	1022	Maintenance	Drummer	J. R. Fisk	20 00
21	1023	Horticultural Department	Laborer	Geo. Stilz	22 00
21	1024	Medical attendance	Surgeon's salary	J. D. Read	100 00
21	1025	Salaries	Assistant Prof. of chemistry	D. Adriance	60 00
21	1026	Salaries	Foreman farm	J. H. Alsworth	66 66
21	1027	Salaries	Assistant Prof. of mechanics	F. E. Geisecke	60 00
21	1028	Salaries	Assistant Prof. of English	W. B. Philpott	60 00
21	1029	Salaries	Assistant Prof. of agriculture	J. F. Duggan	60 00
21	1030	Salaries	Foreman shop	A. Harbers	75 00
21	1031	Salaries	Gardener	G. E. Eberspocher	33 33
21	1032	Expense	Bookkeeper	G. A. Rogers	16 67
21	1033	Salaries	Assistant professor in mathematics	R. F. Smith	90 00
21	1034	Mechanical Department	Supplies	Garth & Nash	1 33
21	1035	Mechanical Department	Supplies	Straight Line Eng. Co	3 50
21	1036	Mechanical Department	Supplies	G. W. Norrell	3 50
21	1037	Maintenance	Groceries	Carson, Sewall & Co.	66 32
21	1038	Maintenance	Oil	Waters Pierce Oil Co.	1 50
21	1039	Salaries	Agent board	T. M. Scott	125 00
21	1040	Printing	Stationery	L. L. McInnis	9 00
21	1041	Printing	Blanks	Clarke & Courts	7 95
21	1042	Bookstore	Blanks	Clarke & Courts	5 25
21	1043	Agricultural Department	Repairs to farming implements	Willie Wooten	6 50
21	1044	Agricultural Department	Hardware	W. Koppe	1 80
21	1045	Mechanical Department	Supplies	Cleveland Drill Co.	12 46
21	1046	Repairs	Hardware	Ripley & Bronson	1 24
21	1047	Agricultural Department	Implements	Keating Imp. and M'f'g Co.	65 25

EXHIBIT B—continued.

List of Warrants Paid by Secretary from January, 1887, to June, 1888—Series 1887–88.

Date.	No. of Warrant.	To what account charged.	For what expended.	To whom paid.	Amount
1888. May 21	1048	Repairs	Lumber	Garth & Nash	$8 38
21	1049	Expense	Postage	W. C. Boyett	22 00
21	1050	Agricultural Department	Supplies	Hanway & Son	3 50
21	1051	Agricultural Department	Supplies	J. W. English	6 60
21	1052	Agricultural Department	Repairs to implements	Willie Wooten	16 20
21	1053	Agricultural Department	Labor	H. Ness	11 40
21	1054	Agricultural Department	Labor	J. Harrison	4 90
21	1055	Smith shop	Hardware	W. Koppe	1 52
21	1056	Agricultural Department	Repairs	A. Oswald	22 85
21	1057	Agricultural Department	Labor	J. H. Alsworth	43 65
21	1058	Maintenance	Beef	W. C. Boyett	177 49
21	1059	Maintenance	Supplies and servants	B. Sbisa	432 89
21	1060	Maintenance	Supplies and servants	J. W. English	25
21	1061	Maintenance	Ice	A. B. ice depot	20 79
21	1062	Printing	Blanks	Clarke & Courts	12 75
21	1063	Horticultural Department	Repairs to implements	A. Oswald	30
21	1064	Agricultural Department	Labor	J. H. Alsworth	9 70
21	1065	Smith shop	Labor	L. E. Weeden	18 55
21	1066	Maintenance	Oil	Waters Pierce Oil Co	5 81
21	1067	Maintenance	Washing	Houston Steam Laundry	162 40
21	1068	Maintenance	Flour	Texas Mill and Elevator Co	25 50

Compliments